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DATE: September 23, 2025

TO: Commissioner Kate H. Stacy, President
Commissioner Joshua Arce, Vice President
Commissioner Avni Jamdar
Commissioner Steve Leveroni
Commissioner Meghan Thurlow

FROM: Dennis J. Herrera, General Manager

RE: Hetch Hetchy Capital Improvement Program Quarterly Report
Quarterly Report (4th Quarter / FY 2024-2025)

Enclosed please find the Hetch Hetchy Capital Improvement Program (HCIP) Quarterly Report for the 4th Quarter (Q4) of Fiscal Year (FY) 2024-2025. The primary intent of the report is to provide the Commission, stakeholders, and the public with a status summary of the HCIP based on data for the period of April 1, 2025 to June 30, 2025.

Attachment

Daniel L. Lurie
Mayor

Kate H. Stacy
President

Joshua Arce
Vice President

Avni Jamdar
Commissioner

Steve Leveroni
Commissioner

Meghan Thurlow
Commissioner

Dennis J. Herrera
General Manager

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San Francisco
Water Power Sewer
Services of the San Francisco Public Utilities Commission

QUARTERLY REPORT

Hetch Hetchy Capital Improvement Program

April 2025 – June 2025

Published: September 23, 2025

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EXECUTIVE SUMMARY

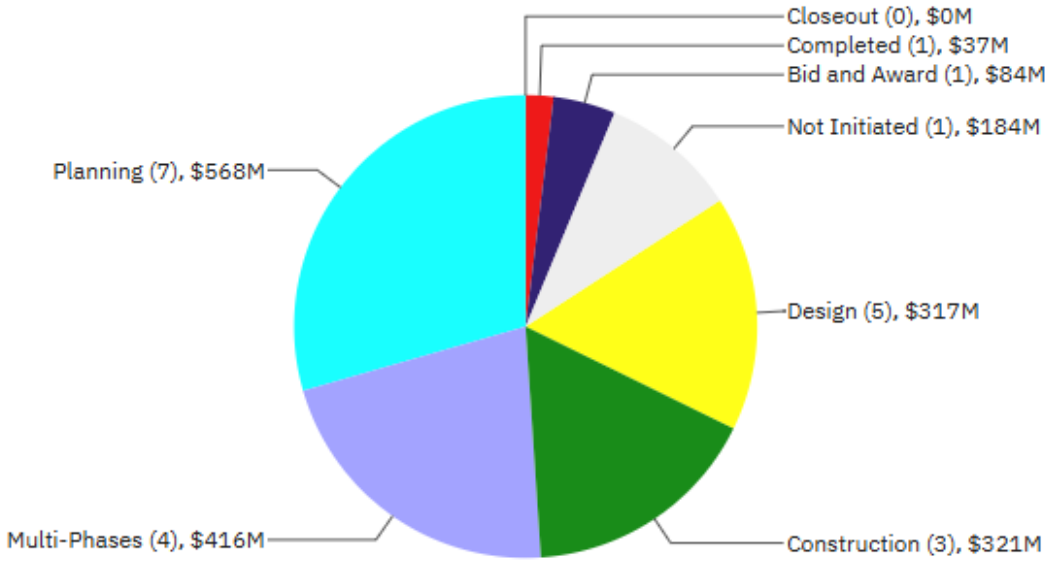
This quarterly report provides a summary update on the Hetch Hetchy Capital Improvement Program (HCIP) that is part of the larger Hetch Hetchy Water Capital Improvement Program. The primary intent of the report is to provide the Commission, stakeholders, and the public with a status summary of the HCIP based on data for the period of April 1, 2025 to June 30, 2025.

This quarterly report includes all approved HCIP projects in the Hetch Hetchy Water Capital Improvement Program according to the 10-Year Capital Plan for FY2024-25 to FY2033-34, presented to and adopted by the Commission on February 13, 2024 (2024 HCIP). There are twenty-two (22) projects in the 2024 HCIP together with three (3) project development (PD) accounts for program-level expenditures for each of the Water, Power, and Joint Programs. As part of the recent Update to the 10-Year Capital Plan for FY2025-26 to FY2034-35 that was adopted by the Commission during the quarter on February 11, 2025, none of the 22 HCIP project budgets or schedules were changed from the 2024 HCIP.

Program Current Status:

At the end of the reporting period, the status of the 22 HCIP projects (excluding for these purposes the 3 PD accounts) is as follows: one (1) project is not yet initiated; thirteen (13) projects are in planning, design, and bid & award; three (3) projects are in construction; four (4) projects have subprojects in multiple phases including construction; and one (1) project completed. During this quarter, the following major project milestones were achieved:

- Construction contract Notice-to-Proceed was issued for SJPL Valve & Safe Entry Improvement project – Contract D, HH1016.
- Progressive Design-Build contract was advertised for Transmission Lines Clearance Mitigation project.
- Construction contract was advertised for Warnerville Substation Rehabilitation Project – Subproject B – HH1017.
- Project completion was achieved for Transmission Lines 7/8 Upgrades.



Approved Budget for Projects in Each Phase

The following Tables provide a high-level summary of the cost and schedule status for this program (including the 3 PD accounts).

Table A shows the Current Approved Budget and Current Forecast Cost of $2,016.81 million and $1,998.36 million, respectively. Reasons for the cost variances are included in Section 7 of this report.

Table A. Program Cost Summary

Program	Expenditures To Date ($ Million) (A)	Current Approved Budget ($ Million) (B)	Q4/FY24-25 Forecast Costs ($ Million) (C)	Cost Variance ($ Million) (D = B - C)	Cost Variance Over Reporting Period * ($ Million) (E)
Program Total	**$459.23**	**$2,016.81**	**$1,998.36**	**$18.45**	**$65.51**

** Negative number is reflecting cost increases since last quarter, and positive number is reflecting cost reduction since last quarter.*

Table B shows the Approved and Forecast Completion Dates.

Table B. Current Approved vs. Current Forecast Schedule Dates

Program	Current Approved Project Start	Actual Start	Current Approved Completion	Current Forecast Completion	Schedule Variance (Months)
Overall HCIP Program	**10/03/11**	**10/03/11 A***	**12/31/41**	**12/31/41**	**-**

** "A" is used after a date to represents an actual date as opposed to a forecast or approved date.*

Program Key Updates:

The key updates for the HCIP include:

- For the SJPL Valve and Safe Entry Improvements project, under Phase 1A (HH-1005) the newly installed knife gate valves failed to meet the American Water Works Association (AWWA) sealing standards during wet testing; the SFPUC rejected acceptance of the valves. The contractor is developing a corrective action plan. Phase 1B (HH-1006): The contractor achieved final completion. Phase 2A (HH-1012): During pipeline filling, a leak occurred at one of the recently installed pipeline flanged-coupling adapters, resulting in flooding at the Roselle Valvehouse that caused damage to electronic and mechanical equipment. The contractor is developing a recovery plan to restore the facility. Phases 2B/2C (HH-1016): The Notice to

Proceed for construction was issued. The contractor has begun submitting required documents and submittals. Phase 3 (HH-1009): The contractor achieved substantial completion.

- For the Moccasin Powerhouse Bypass Upgrades project, an independent technical review was performed on the 95% design package and provided significant comments concerning design hydraulics; contract advertisement will be delayed to improve the design.
- For the Moccasin Powerhouse and Generator Step-Up (GSU) Rehabilitation project, the contractor for Subproject B (contract DB-121R2) worked with SFPUC to determine a solution to Unit 1 pre-existing shaft alignment problems; final completion will be delayed to address the alignment issue. For Subproject C, the 95% design package was rejected due to quality concerns and a resubmittal is expected next quarter.
- For Transmission Line Clearance Mitigation project, the Progressive Design-Build contract DB-139 Request for Qualifications and Proposals was advertised in April and bid opening was in June. Proposals were being reviewed by the project team.
- For the Warnerville Substation Rehabilitation project, the construction contract was advertised, and two bids were received, both below the Engineer's estimate. Evaluation of bidder's qualifications are underway.
- For the Moccasin Penstock Rehabilitation, additional pipeline alignments were added to the alternatives analysis due to recent Right of Way developments that allowed these favorable alignments to be considered.
- For the Moccasin Engineering & Records Building project, the Design Development package is under review. Project team presented and obtained Civic Design Review Phase 2 approval.
- For the Moccasin Warehouse Building project, project team presented various options for the new warehouse building location to Hetch Hetchy team. The design team is working on the conceptual design package.
- For the O'Shaughnessy Dam Outlet Works Phase 1 Subproject A (contract DB-135 for bulkheads rehabilitation), the new bulkheads were delivered, installed, and tested during the Hetch Hetchy water system outage. For Subproject B (contract HH-1015 Drainage & Miscellaneous Dam Improvements), construction is in progress starting with concrete demolition work. For Subproject C (contract HH-1011 Instream Flow Release Valve Replacement), the Instream Flow Release system is operational, and punchlist items are being addressed. For Subproject D (Slide Gates) and Subproject E (Drum Gates), the draft Needs Assessment and Alternative Analysis Report are being revised based on comments received.
- For the Moccasin Dam & Reservoir Long-Term Improvements project, the 35% design was completed and is being reviewed and geotechnical data analysis has been finalized.
- For the Cherry Dam Spillway - Short Term Improvements project, the consultant delivered the 95% design package for review; the next submittal will be a combined design package with the Eleanor Dam Interim Bridge Repair, and a Technical Steering Committee Meeting will be scheduled to review the project.
- For the Eleanor Dam Rehabilitation and the Interim Bridge Repair subproject, the project team is coordinating a 'mock-up' test for proposed bridge overlay materials. The draft 65% Design Package for the subproject was received. For Eleanor Dam and Bridge Long-Term Rehabilitation subproject, the project team received the draft Needs Assessment Review Memo and Erodibility Analysis Report. The project objective is being confirmed, and then the Needs Assessment Review Memo will be finalized.

- For the Early Intake Dam – Long Term project, the final draft Alternatives Analysis Report (AAR) was issued this quarter, and the SFPUC is performing an internal review and comparison of the alternatives before further development of the AAR occurs. The forecasted cost has been decreased to reflect a pause to determine the next steps for the project.
- For the Mountain Tunnel Improvements Project Subproject A (HH-1000R) contract, the Flow Control Facility building foundation was demolished and rebuilt. Fabrication of the two remaining double-disc knife gate valves and the two sleeve valves continued off site. Work continued at the Priest Adit to prepare for the upcoming concrete pours of the final lining. At the Early Intake Adit, preparation work was performed for installation of the new bulkhead door. Outage 5 commissioning meetings between the City and the contractor have been ongoing. Subproject B (HH-1013) Moccasin Water System Filtration Plant: The building foundation and the concrete backwash tanks were successfully constructed.
- For the Moccasin Wastewater Treatment Plant Replacement (contract HH-1010) project, the Sequential Batch Reactor walls were constructed, and the transformer was delivered onsite.

Quarterly Report
Hetch Hetchy
Capital Improvement Program

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HETCH HETCHY WATER AND POWER (HHWP)–

WATER DIVISION CAPITAL IMPROVEMENT PROGRAMS

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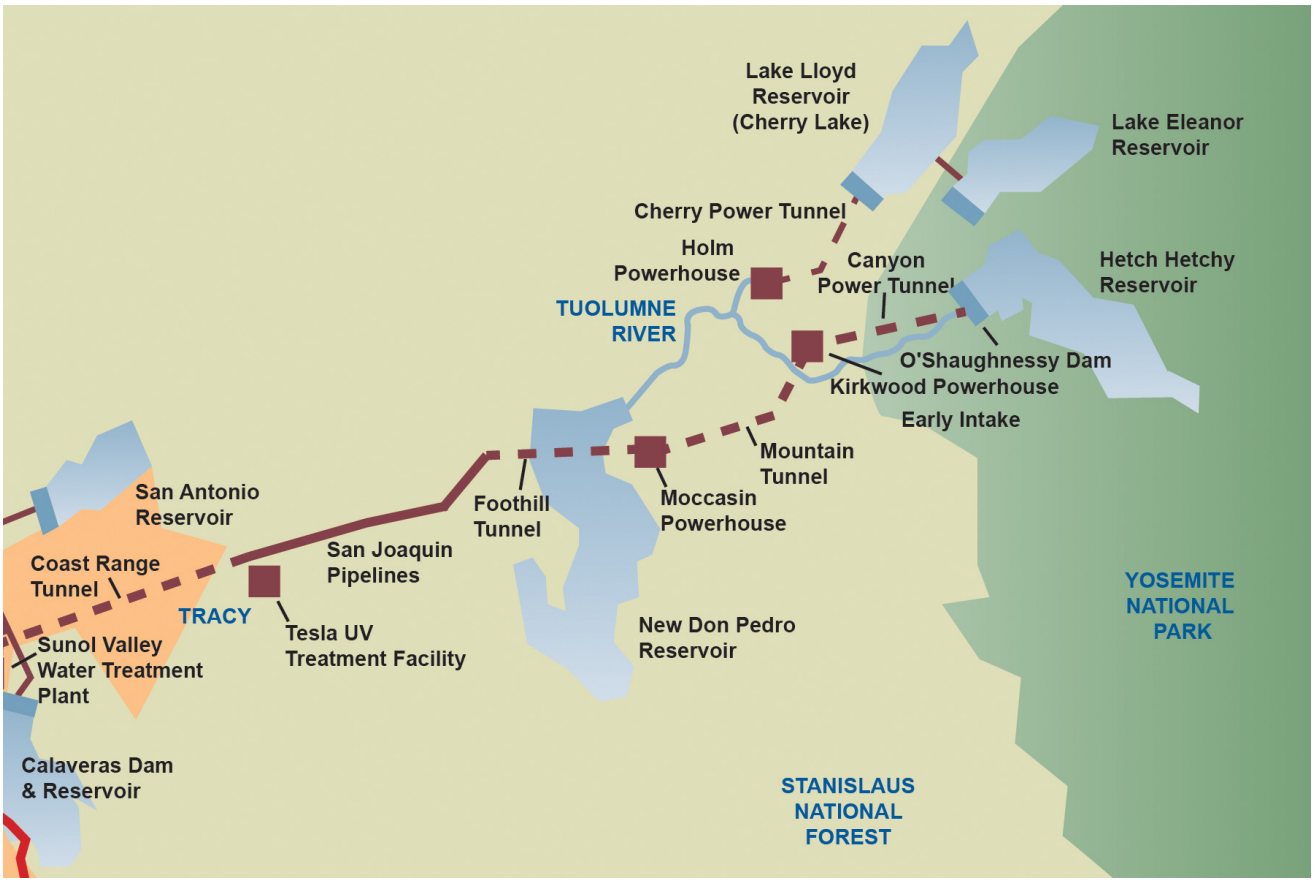
INTRODUCTION

The Hetch Hetchy Water and Power (HHWP) Water Division is responsible for operating, managing, and maintaining the HHWP system and facilities. This includes water facilities that are part of the Regional Water System from Hetch Hetchy Reservoir, located in Yosemite National Park, to Alameda East Portal, located in Sunol Valley and power facilities located from Early Intake to Newark. The HHWP Water Division operates, manages, and maintains three impoundment reservoirs, three regulating reservoirs, four powerhouses, one switchyard, three substations, 170 miles of pipeline and tunnels, almost 50 miles of paved road, over 160 miles of transmission lines, watershed land, and right-of-way property. HHWP Water Division provides 85 percent of the San Francisco Public Utilities Commission (SFPUC) water supply for 2.7 million residential, commercial, and industrial customers in Alameda, Santa Clara, San Mateo, and San Francisco counties. On average, HHWP Water Division generates about 1,650 gigawatt hours (GWH) of clean hydro-generated power annually. A majority of HHWP staff is based in Moccasin, CA, which is 140 miles east of San Francisco.

The HHWP Water Division's capital improvement programs are divided into two programs: Hetch Hetchy Capital Improvement Program (HCIP) and Renewal and Replacement (R&R). This report provides a quarterly status update on the HCIP, a group of capital improvement projects that are greater than $5M in value and have been approved by the Commission as part of the SFPUC's 10-Year Capital Improvement Program. The status of the Hetch Hetchy R&R projects is reported annually in the Annual Report on Water Enterprise-Managed Capital Improvement Projects.

The map below shows the location of the assets and facilities associated with HHWP.



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HETCH HETCHY CAPITAL IMPROVEMENT PROGRAM (HCIP)

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1. PROGRAM DESCRIPTION

The Hetch Hetchy Capital Improvement Program (HCIP) is a group of multi-year capital projects to upgrade existing, aging infrastructure so that it will meet the challenges of today and the future. These projects will deliver improvements that enhance the SFPUC's ability to provide reliable, affordable, high-quality water to its 2.7 million customers in an environmentally sustainable manner. The goals are

1) to provide capital improvements needed to cost-effectively ensure that water quality, seismic reliability, delivery reliability, and water supply objectives established for the Regional Water System facilities managed by HHWP are met, and 2) to optimize the benefits of HHWP power facilities operations. Ongoing development of the HCIP will sustain the Regional Water System's status as an unfiltered water source and a gravity-driven system.

The scope of HCIP is divided into three major project types: Water, Power, and Joint. The Water sub-program includes only asset improvements benefiting the SFPUC's water customers. The Power sub-program includes only asset improvements used to generate environmentally friendly hydroelectric energy. The Joint sub-program includes projects for assets that are used for both water delivery and power generation. In addition, projects in each sub-program of the HCIP have been further organized by asset type consisting of the following:

Water Infrastructure

- Water Conveyance – projects to enhance the reliability of water delivery through pipelines and penstocks, allowing for both delivery of water to SFPUC customers and delivery of water to powerhouses for power generation.

Power Infrastructure

- Powerhouse – projects to improve facilities at the Holm, Kirkwood, and Moccasin powerhouses.
- Switchyard & Substations – projects to meet operational objectives for power, including reliability, regulatory compliance, and sustainability.
- Transmission Lines – projects to expand or improve power assets for electricity transmission.

Joint (Water and Power) Infrastructure

- Dams & Reservoirs – projects to improve assets used for storage and delivery of water to SFPUC customers, as well as for water storage for power generation.
- Mountain Tunnel – projects to address deficiencies with the Mountain Tunnel, a critical, non-redundant link in the Hetch Hetchy and Regional Water System that conveys water from Kirkwood Powerhouse to Priest Reservoir.
- Roads & Bridges – projects to replace or improve bridges that are utilized to access HHWP assets.
- Tunnels – projects to repair tunnels along the HHWP system (other than Mountain Tunnel).
- Utilities – projects to expand or improve utilities for asset and work locations such as water and wastewater treatment facilities.
- Buildings – projects to provide safe and code compliant workspaces.

2. PROGRAM STATUS

This Quarterly Report presents the progress made on HCIP between April 1, 2025 and June 30, 2025. This document serves as the fourth (4th) Quarterly Report in Fiscal Year 2024-2025 (FY25) published for the HCIP.

This quarterly report includes all HCIP projects in the Hetch Hetchy Water Capital Improvement Program according to the 10-Year Capital Plan for FY2024-25 to FY2033-34 (FY25-34 CIP), presented to and adopted by the Commission on February 13, 2024, under Resolution No. 24-0032 (2024 HCIP). The 2024 HCIP is a subset of the Hetch Hetchy Water 10-Year CIP for FY2025-2034 and includes individual projects over $5 million that were then currently active or intended to be active by July 1, 2024 at the time proposed to the Commission on February 13, 2024. This baseline for comparison will remain the same until adoption of a new 10-Year CIP; the baseline will be updated with the changes in the adopted CIP at the start of the new fiscal year following adoption. As part of the recent Update to the 10-Year Capital Plan for FY2025-26 to FY2034-35 that was adopted by the Commission during the quarter on February 11, 2025, none of the 22 HCIP project budgets or schedules were changed from the 2024 HCIP.

There are twenty-two (22) projects in the 2024 HCIP together with three (3) project development (PD) accounts for program-level expenditures for each of the Water, Power, and Joint Programs. A description of each project and of each project development account is provided in the Appendix A of this report.

The accrued PD expenditures are included in the Cost Summary in Table 3 in order to give an accurate report of the overall HCIP cost performance.

Figure 2.1 shows the total Approved Budget for all twenty-two (22) projects in each phase of the program as of June 30, 2025 (PD accounts do not have phases and are not included in Figure 2.1). The number of projects currently in each phase is shown in parentheses.

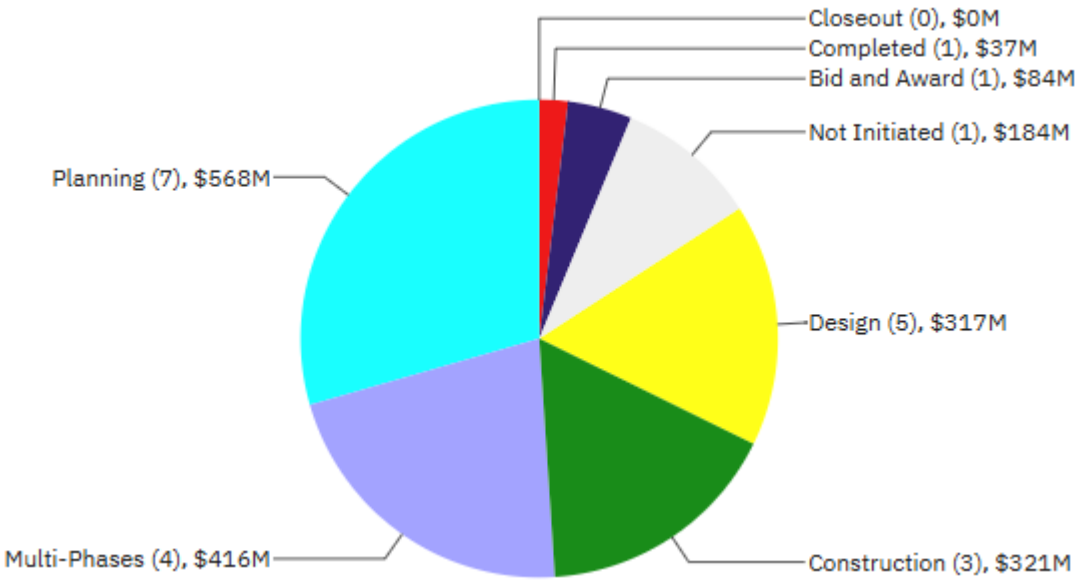

Figure 2.1 Approved Budget for Projects in Each Phase

Figure 2.2 shows the total number of projects in the following stages as of June 30, 2025: Pre-construction, Construction, and Post-construction.

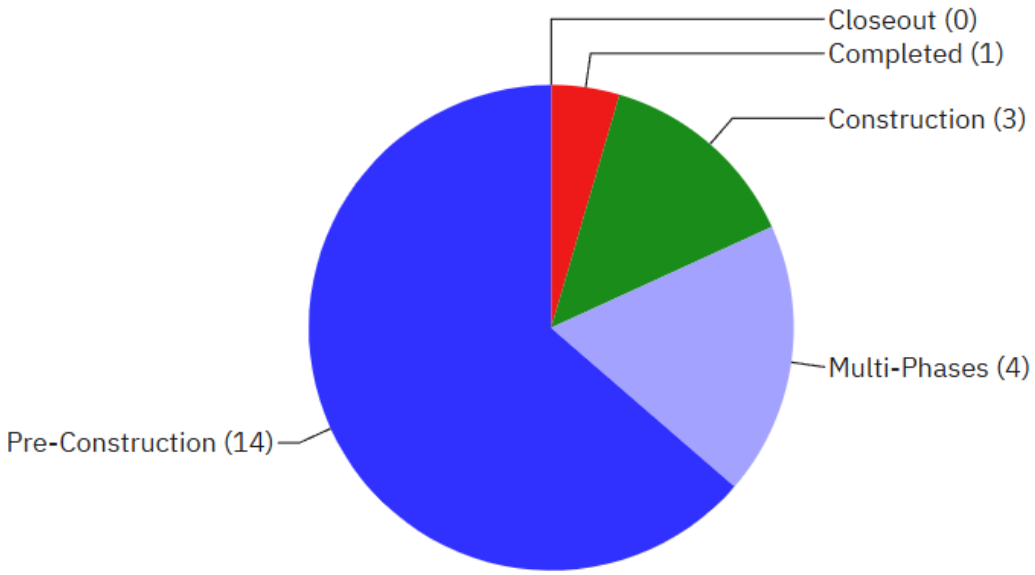

Figure 2.2 Number of Projects in Pre-construction, Construction, and Post-Construction

Figure 2.3 summarizes the environmental review status of the HCIP projects as of June 30, 2025. Environmental review is performed for projects under California Environmental Quality Act (CEQA).

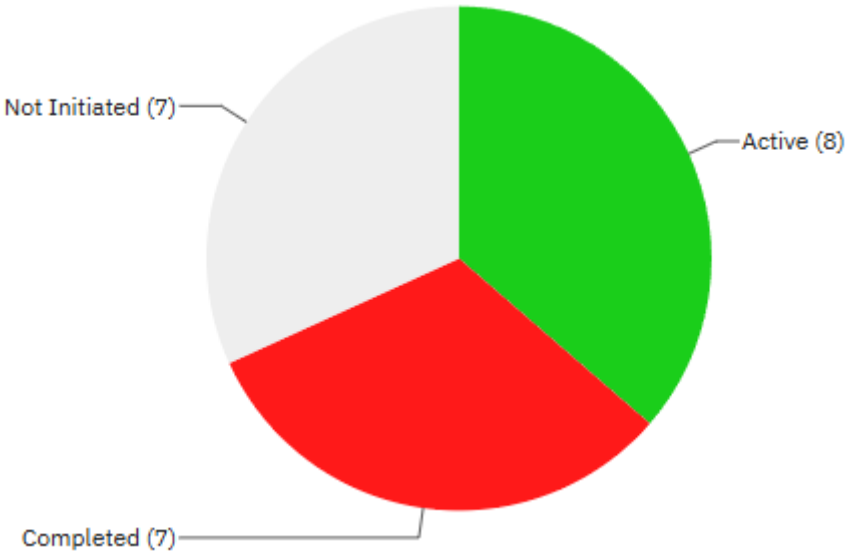

Figure 2.3 Program Environmental Review

3. PROGRAM COST SUMMARY

Table 3 provides an overall cost summary of the 22 HCIP projects and 3 HCIP PD accounts at the end of the quarter. It shows the Expenditures to Date, Current Approved Budget, Current Forecast Cost, the Cost Variance between the Approved and Forecast Costs, and the Cost Variance Over the Reporting Period (difference between cost forecasts reported in Q3/FY2024-25 and in Q4/FY2024-25). The Current Approved Budget and Forecast Cost for the HCIP are $2,016.81 million and $1,998.36 million, respectively.

The overall 2024 HCIP positive Cost Variance of $18.45 million in Table 3 can be attributed to the following projects and their variances are provided below: the reasons for the project variances are reported in section 7:

- The Moccasin Powerhouse and GSU Rehabilitation $25.94M cost increase variance is a continuation of $13.48M and $2.15M from Q4 of FY23/24 and Q2 FY24/25, respectively, plus forecast cost increased by $10.31M during the quarter.
- The Warnerville Substation Rehabilitation Project $1.92M cost increase variance is a continuation of $0.92M and $1.00M from Q2 and Q3 of FY24/25, respectively.
- The Transmission Lines 7/8 Upgrades $1.90M cost decrease variance is a continuation from Q4 of FY23/24.
- The Transmission Lines Clearance Mitigation forecast cost increased by $23.05M during the quarter.
- The Moccasin Warehouse Building $8.87M cost increase variance is a continuation from Q3 of FY24/25.
- The Early Intake Dam – Long Term forecast cost decreased by $98.87M during the quarter.
- The Moccasin Dam & Reservoir Long Term Improvements $22.54M cost increase variance is a continuation from Q1 of FY24/25.

Table 3. Cost Summary

Subprograms	Expenditures To Date ($ Million) (A)	Current Approved Budget ($ Million) (B)	Q4/FY2024-25 Forecast Costs ($ Million) (C)	Cost Variance ($ Million) (D = B - C)	Cost Variance Over Reporting Period * ($ Million) (E)
Water Infrastructure	**$71.05**	**$209.41**	**$209.41**	**-**	**-**
Water Conveyance (Water)	$64.75	$196.49	$196.49	-	-
Water Infrastructure Project Development	$6.30	$12.91	$12.91	-	-
Power Infrastructure	**$141.27**	**$376.41**	**$425.42**	**($49.01)**	**($33.37)**
Dams & Reservoir (Power)	$0.37	$38.80	$38.80	-	-
Powerhouse	$57.37	$141.61	$167.55	($25.94)	($10.31)
Switchyard & Substations (Power)	$27.64	$57.12	$59.04	($1.92)	-

Subprograms	Expenditures To Date ($ Million) (A)	Current Approved Budget ($ Million) (B)	Q4/FY2024-25 Forecast Costs ($ Million) (C)	Cost Variance ($ Million) (D = B - C)	Cost Variance Over Reporting Period * ($ Million) (E)
Transmission Lines	$50.53	$121.01	$142.16	($21.15)	($23.05)
Power Infrastructure Project Development	$5.37	$17.87	$17.87	-	-
Joint Infrastructure	**$246.91**	**$1,431.00**	**$1,363.53**	**$67.47**	**$98.87**
Water Conveyance (Joint)	$9.07	$331.17	$331.17	-	-
Buildings (Joint)	$3.05	$115.02	$123.89	($8.87)	-
Dams & Reservoirs (Joint)	$42.20	$598.86	$522.53	$76.33	$98.87
Mountain Tunnel	$171.91	$268.67	$268.67	-	-
Powerhouse (Joint)	$0.97	$13.47	$13.47	-	-
Tunnels (Joint)	$2.69	$30.14	$30.14	-	-
Utilities (Joint)	$5.40	$15.38	$15.38	-	-
Joint Infrastructure Project Development	$11.61	$58.29	$58.29	-	-
Overall Program Total	**$459.23**	**$2,016.81**	**$1,998.36**	**$18.45**	**$65.51**

** Negative number is reflecting cost increases since last quarter, and positive number is reflecting cost reduction since last quarter.*

4. PROGRAM SCHEDULE SUMMARY

Figure 4 and Table 4 compare the FY2025–2034 CIP Approved Schedule and the Current Forecast Schedule for the HCIP. As shown in Table 4, the HCIP approved and forecast schedule is December 2041.

Figure 4. Program Schedule Summary

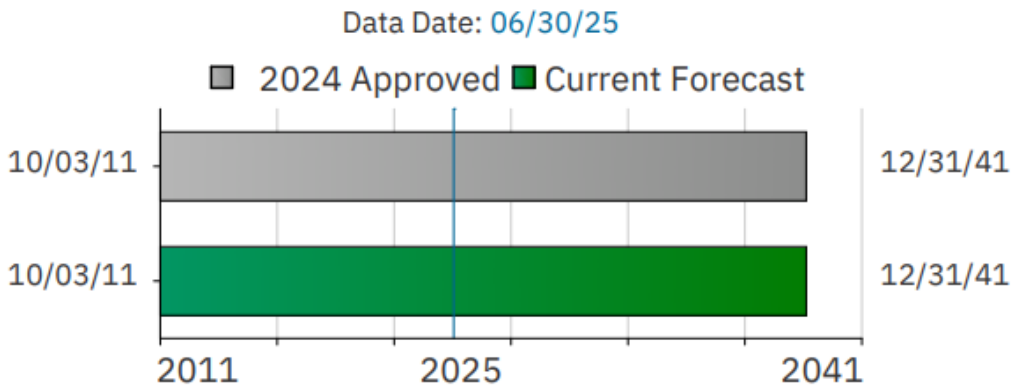

Table 4. FY2025-2034 CIP Approved vs. Current Forecast Schedule Dates

Sub-Program	CIP Approved Project Start	Actual Start	CIP Approved Completion	Current Forecast Completion	Schedule Variance (Months)
Water Infrastructure	03/26/12	03/26/12 A*	06/30/34	06/30/34	-
Power Infrastructure	05/29/12	05/29/12 A*	06/30/34	06/30/34	-
Joint Infrastructure	10/03/11	10/03/11 A*	12/31/41	12/31/41	-
Overall HCIP Projects	**10/03/11**	**10/03/11 A***	**12/31/41**	**12/31/41**	**-**

* *"A" is used after a date to reference an actual date as opposed to a forecast or approved date.*

5. BUDGET AND SCHEDULE TREND SUMMARY

Table 5 contains all approved HCIP projects that are active and in any of the planning, design, bid and award, or construction phases. The table excludes all Project Development accounts, as well as any projects that are either not-initiated, on-hold, in closeout, or completed.

During this Quarter (Q4 FY2024-25), the following major project milestones were achieved:

- Construction contract Notice-to-Proceed was issued for SJPL Valve & Safe Entry Improvement project – Contract D, HH1016.
- Progressive Design-Build contract was advertised for Transmission Lines Clearance Mitigation project.
- Construction contract was advertised for Warnerville Substation Rehabilitation Project – Subproject B – HH1017.
- Project completion was achieved for Transmission Lines 7/8 Upgrades.

Table 5. Budget and Schedule Trend Summary

All Costs are shown in million

Project Name	Most Recent CIP Approved Budget		Project Initiation		CER		35% Design		95% Design		Awarded Construction[1]		Current Status	
	Approved Budget	Approved Completion	Forecast Cost	Forecast Completion	Forecast Cost	Forecast Completion	Forecast Cost	Forecast Completion	Forecast Cost	Forecast Completion	Forecast Cost	Forecast Completion	Forecast Cost	Forecast Completion
	a	b	c	d	e	f	g	h	i	j	k	l	m	n
Water Infrastructure														
10035575 - SJPL Valve and Safe Entry Improvement	FY2025-34		07/01/19		04/16/21		03/03/21 (Phase 1A), 05/28/21 (Phase 1B), 08/19/22 (Phase 2) & 12/30/21 (Phase 3)		07/14/21 (Phase 1A), 10/29/21 (Phase 1B), 06/08/23 (Phase 2A), 05/21/24 (Phase 2B/2C) & 03/31/23 (Phase 3)		03/08/22 (Phase 1A), 08/23/22 (Phase 1B), 02/27/24 (Phase 2A), 03/11/25 (Phase 2B/2C) & 01/09/24 (Phase 3)		Q4 - FY2024-25	
Phase 1A Phase 1B Phase 2A Phase 2B/2C Phase 3	$157.8	02/28/29	$95.3	07/01/25	$95.3	07/01/25	$98.9	03/13/28	$157.8	02/28/29	$157.8	02/28/29	$157.8	02/28/29
10041725 - SJPL Valve Remote Control and Monitoring	FY2025-34		11/14/24		01/27/27		06/29/27		04/28/28		03/29/29		Q4 - FY2024-25	
	$38.7	12/31/28	$38.7	12/31/28	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	$38.7	06/30/31
Power Infrastructure														
10014079 - Cherry-Eleanor Pumps	FY2025-34		01/01/25		09/29/27		05/17/28		06/15/29		06/01/30		Q4 - FY2024-25	
	$38.8	06/30/31	$38.8	06/30/31	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	$38.8	06/03/33
10036809 - HHW - Moccasin Powerhouse Bypass Upgrade	FY2025-34		09/18/20		03/31/23		03/13/24		02/28/25		06/03/26		Q4 - FY2024-25	
	$41.1	12/01/27	$15.0	12/01/27	$40.7	12/01/27	$41.1	12/01/27	$41.1	12/01/27	TBD	TBD	$41.1	07/31/28
10014086 - Moccasin Powerhouse and GSU Rehabilitation	FY2025-34		09/18/20		05/14/21		07/29/19 (Phase 1), 10/01/19 (Phase 2) & 12/29/23 (Phase 3)		09/09/20 (Phase 1), 05/11/22 (Phase 2) & 07/18/25 (Phase 3)		04/13/21 (Phase 1), 05/11/21 (Phase 2) & 04/08/26 (Phase 3)		Q4 - FY2024-25	
Phase 1 Phase 2 Phase 3	$100.6	12/31/28	$18.0	10/03/18	$66.7	04/13/27	$100.6	12/31/28	$66.7	12/03/27	$66.7	12/03/27	$126.5	03/31/30
10014089 - Transmission Lines Clearance Mitigation	FY2025-34		07/01/17		12/16/24		02/02/26		07/30/26		09/30/25		Q4 - FY2024-25	
	$83.7	06/30/29	$83.7	06/30/29	$83.7	06/30/29	TBD	TBD	TBD	TBD	TBD	TBD	$106.7	06/30/29
10014087 - Warnerville Substation Rehabilitation Project	FY2025-34		09/01/15 (Phase A), 01/01/21 (Phase B)		N/A (Phase A), 02/25/22 (Phase B)		N/A (Phase A), N/A (Phase B)		N/A (Phase A), 03/20/24 (Phase B)		05/23/17 (Phase A), 11/18/25 (Phase B)		Q4 - FY2024-25	
Phase A - DB-127R Phase B - HH-1017	$37.4	11/25/26	$27.2	11/25/26	$34.2	11/25/26	$34.2	11/25/26	$37.4	11/25/26	$39.3	11/08/27	$39.3	11/08/27
10039568 - Moccasin Switchyard Rehabilitation	FY2025-34		11/01/22		03/13/26		08/17/26		07/19/27		04/20/28		Q4 - FY2024-25	
	$19.7	01/31/30	$9.7	11/30/28	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	$19.7	01/31/30
Joint Infrastructure														
10014088 - Moccasin Penstock Rehabilitation	FY2025-34		02/03/14		09/03/26		03/05/27		03/02/29		03/06/31		Q4 - FY2024-25	
	$331.2	12/08/34	$13.2	12/31/24	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	$331.2	12/08/34
10039680 - Moccasin Engineering and Records Building[4]	FY2025-34		12/14/22		05/31/24		10/31/24		06/30/26		12/18/26		Q4 - FY2024-25	
	$88.7	05/31/29	$60.7	06/30/31	$88.7	05/31/29	$88.7	05/31/29	TBD	TBD	TBD	TBD	$88.7	05/31/29

Table 5. Budget and Schedule Trend Summary (continued)

All Costs are shown in million

Project Name	Most Recent CIP Approved Budget		Project Initiation		CER		35% Design		95% Design		Awarded Construction[1]		Current Status	
	Approved Budget	Approved Completion	Forecast Cost	Forecast Completion	Forecast Cost	Forecast Completion	Forecast Cost	Forecast Completion	Forecast Cost	Forecast Completion	Forecast Cost	Forecast Completion	Forecast Cost	Forecast Completion
	a	b	c	d	e	f	g	h	i	j	k	l	m	n
Water Infrastructure														
10041727 - Moccasin Warehouse Building	FY2025-34		10/15/24		08/29/25		01/23/26		11/25/26		01/18/28		Q4 - FY2024-25	
	$26.3	04/01/31	$26.3	04/01/31	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	$35.2	04/01/31
10032903 - O'Shaughnessy Dam Outlet Works Phase I[2]	FY2025-34		02/01/18		09/30/21 (Subproject A), Complete (Subproject B), 09/30/22 (Subproject C),		01/12/24 (Subproject A)[5], N/A (Subproject B) & 11/16/22 (Subproject C)		03/18/24 (Subproject A)[5], N/A (Subproject B) & 12/23/22 (Subproject C)		06/13/23 (Subproject A), 08/13/24 (Subproject B) & 06/13/23 (Subproject C)		Q4 - FY2024-25	
Subproject A Subproject B Subproject C Subproject D (Planning Only) Subproject E (Planning Only)	$43.7	12/31/25	$17.2	12/31/24	$47.9	09/16/25	$48.0	09/16/25	$48.0	09/16/25	$43.7	06/30/26	$43.7	06/30/26
10037351 - Moccasin Dam & Reservoir Long Term Improvement	FY2025-34		05/03/21		09/30/24		06/30/25		03/06/28		12/04/29		Q4 - FY2024-25	
	$142.2	12/31/34	$83.2	07/01/27	$164.7	12/31/34	TBD	TBD	TBD	TBD	TBD	TBD	$164.7	06/30/33
10014115 - Cherry Dam Spillway - Short Term Improvements	FY2025-34		03/01/21		06/28/24		11/22/24		05/16/25		01/20/26		Q4 - FY2024-25	
	$14.9	06/30/27	$11.9	07/01/27	$14.9	06/30/27	$14.9	06/30/27	$14.9	06/30/27	TBD	TBD	$14.9	06/30/27
10039119 - Early Intake Dam – Long Term	FY2025-34		07/01/23		06/30/26		12/31/27		06/30/29		01/31/31		Q4 - FY2024-25	
	$100.1	12/31/35	$88.7	06/30/31	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	$1.2	12/31/35
10030759 - Eleanor Dam Rehabilitation	FY2025-34		06/01/20		09/04/24 06/30/27		2/25/25 12/29/28		07/09/25 12/31/31		02/27/26 09/30/33		Q4 - FY2024-25	
Subproject A Subproject B	$113.9	12/31/38	$113.9	12/31/38	$113.9	12/31/38	$113.9	12/31/38	TBD	TBD	TBD	TBD	$113.9	12/31/38
10014114 - Mountain Tunnel Improvement Project	FY2025-34		10/03/11		12/29/17		05/15/18		07/31/19		10/13/20		Q4 - FY2024-25	
	$268.7	06/03/27	$114.0	12/30/21	$246.1	12/31/26	$238.2	12/31/26	$238.2	12/31/26	$238.2	06/03/27	$268.7	06/03/27
10037077 - Moccasin Old Powerhouse Hazard Mitigation	FY2025-34		01/01/21		01/30/25		03/04/29		11/06/29		06/17/30		Q4 - FY2024-25	
	$13.5	07/01/32	$12.2	01/31/25	$13.5	07/01/32	TBD	TBD	TBD	TBD	TBD	TBD	$13.5	07/01/32
10014108 - Canyon Tunnel - Hetchy Adit Rehab & OSH Bridge	FY2025-34		02/03/14		03/17/23		03/30/16		12/13/24		02/16/27		Q4 - FY2024-25	
	$30.1	12/31/30	$0.5	06/30/16	$15.0	12/30/26	$8.0	06/30/18	$30.1	12/31/30	TBD	TBD	$30.1	12/31/30
10014110 - Moccasin Wastewater Treatment Plant[3]	FY2025-34		01/03/22		-		04/29/22		03/23/23		02/27/24		Q4 - FY2024-25	
	$15.4	02/20/28	$8.8	04/07/26	-	-	$8.8	04/07/26	$12.0	04/07/26	$15.4	02/20/28	$15.4	02/20/28

Footnotes:

1. This represents forecast project cost and project completion date at the time of award of construction contract (or award of CM/GC or Design-Build contracts/packages).
2. This represents that Subproject A will be doing Progressive Design Build during Construction. Subproject B is in the process of finalizing the design. Subprojects D & E will not be doing CER.
3. This represents that the project started during the Design Phase.
4. This is a building project which follows a different set of milestones. Dates shown for CER, 35% Design, and 95% Design above are for Conceptual Design, Schematic Design, and Contract Document.
5. Dates shown are for 50% Design and 100% Design.

6. PROJECT PERFORMANCE SUMMARY*

All costs are shown in $1,000s

Project Name	Active Phase (a) (**)	CIP Approved Budget (b) (+)	Current Approved Budget (c) (++)	Current Forecast Cost (d)	Expenditures to Date (e)	Cost Variance (f=c-d) (+++)	% Cost Changes (g=f/c) (+++)	CIP Completion Date (h) (+)	Approved Completion Date (i) (++)	Forecast Completion Date (j)	Schedule Variance (Days) (k=i-j) (+++)
Water Infrastructure											
Water Conveyance (Water)											
10035575 SJPL Valve and Safe Entry Improvement	MP	$157,752	$157,752	$157,752	$64,712	$0	0%	02/28/29	02/28/29	02/28/29	0
10041725 SJPL Valve Remote Control and Monitoring	PL	$38,743	$38,743	$38,743	$41	$0	0%	12/31/28	12/31/28	06/30/31	(911)
Power Infrastructure											
Dams & Reservoirs (Power)											
10014079 Cherry-Eleanor Pumps	PL	$38,798	$38,798	$38,798	$368	$0	0%	06/30/31	06/30/31	06/03/33	(704)
Powerhouse											
10036809 HHW - Moccasin Powerhouse Bypass Upgrade	DS	$41,056	$41,056	$41,056	$3,447	$0	0%	12/01/27	12/01/27	07/31/28	(243)

* Does not include projects in closeout, completed, not initiated, on hold, deleted projects, and projects combined with other projects.

**** Phase Status Legend**

PL Planning DS Design

BA Bid & Award CN Construction MP Multi-Phase

Footnotes:

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(+++) Negative number reflects cost overrun (or schedule delay) and positive number reflects cost underrun (or ahead of schedule). Projects with a forecasted cost overrun greater than 10%, or forecasted delay of greater than 6 months or 10%, will be highlighted in grey.

Project Name	Active Phase (a) (**)	CIP Approved Budget (b) (+)	Current Approved Budget (c) (++)	Current Forecast Cost (d)	Expenditures to Date (e)	Cost Variance (f=c-d) (+++)	% Cost Changes (g=f/c) (+++)	CIP Completion Date (h) (+)	Approved Completion Date (i) (++)	Forecast Completion Date (j)	Schedule Variance (Days) (k=i-j) (+++)
10014086 Moccasin Powerhouse and GSU Rehabilitation	MP	$100,556	$100,556	$126,496	$53,921	($25,940)	(26%)	12/31/28	12/31/28	03/31/30	(455)
Transmission Lines											
10014089 Transmission Lines Clearance Mitigation	BA	$83,681	$83,681	$106,736	$18,034	($23,055)	(28%)	06/30/29	06/30/29	06/30/29	0
Switchyard & Substations (Power)											
10014087 Warnerville Substation Rehabilitation Project	CN	$37,407	$37,407	$39,328	$27,095	($1,921)	(5%)	11/25/26	11/25/26	11/08/27	(348)
10039568 Moccasin Switchyard Rehabilitation	PL	$19,708	$19,708	$19,708	$541	$0	0%	01/31/30	01/31/30	01/31/30	0
Joint Infrastructure											
Water Conveyance (Joint)											

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PL Planning DS Design

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Project Name	Active Phase (a) (**)	CIP Approved Budget (b) (+)	Current Approved Budget (c) (++)	Current Forecast Cost (d)	Expenditures to Date (e)	Cost Variance (f=c-d) (+++)	% Cost Changes (g=f/c) (+++)	CIP Completion Date (h) (+)	Approved Completion Date (i) (++)	Forecast Completion Date (j)	Schedule Variance (Days) (k=i-j) (+++)
10014088 Moccasin Penstock Rehabilitation	PL	$331,172	$331,172	$331,172	$9,072	$0	0%	12/08/34	12/08/34	12/08/34	0
Buildings (Joint)											
10039680 Moccasin Engineering and Records Building	DS	$88,734	$88,734	$88,734	$2,851	$0	0%	05/31/29	05/31/29	05/31/29	0
10041727 Moccasin Warehouse Building	PL	$26,290	$26,290	$35,157	$199	($8,867)	(34%)	04/01/31	04/01/31	04/01/31	0
Dams & Reservoirs (Joint)											
10032903 O'Shaughnessy Dam Outlet Works Phase 1	MP	$43,731	$43,731	$43,731	$29,930	$0	0%	12/31/25	12/31/25	06/30/26	(181)
10037351 Moccasin Dam & Reservoir Long Term Improvement	DS	$142,188	$142,188	$164,728	$6,682	($22,540)	(16%)	12/31/34	12/31/34	06/30/33	549

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**** Phase Status Legend**

PL Planning DS Design

BA Bid & Award CN Construction MP Multi-Phase

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Project Name	Active Phase (a) (**)	CIP Approved Budget (b) (+)	Current Approved Budget (c) (++)	Current Forecast Cost (d)	Expenditures to Date (e)	Cost Variance (f=c-d) (+++)	% Cost Changes (g=f/c) (+++)	CIP Completion Date (h) (+)	Approved Completion Date (i) (++)	Forecast Completion Date (j)	Schedule Variance (Days) (k=i-j) (+++)
10014115 Cherry Dam Spillway - Short Term Improvements	DS	$14,886	$14,886	$14,886	$3,472	$0	0%	06/30/27	06/30/27	06/30/27	0
10030759 Eleanor Dam Rehabilitation	MP	$113,874	$113,874	$113,874	$1,214	$0	0%	12/31/38	12/31/38	12/31/38	0
10039119 Early Intake Dam - Long Term	PL	$100,072	$100,072	$1,200	$901	$98,872	99%	12/31/35	12/31/35	12/31/35	0
Mountain Tunnel											
10014114 Mountain Tunnel Improvement Project	CN	$268,669	$268,669	$268,669	$171,914	$0	0%	06/03/27	06/03/27	06/03/27	0
Powerhouse (Joint)											
10037077 Moccasin Old Powerhouse Hazard Mitigation	PL	$13,475	$13,475	$13,475	$970	$0	0%	07/01/32	07/01/32	07/01/32	0
Tunnels (Joint)											

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**** Phase Status Legend**

PL Planning DS Design

BA Bid & Award CN Construction MP Multi-Phase

Footnotes:

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(+++) Negative number reflects cost overrun (or schedule delay) and positive number reflects cost underrun (or ahead of schedule). Projects with a forecasted cost overrun greater than 10%, or forecasted delay of greater than 6 months or 10%, will be highlighted in grey.

Project Name	Active Phase (a) (**)	CIP Approved Budget (b) (+)	Current Approved Budget (c) (++)	Current Forecast Cost (d)	Expenditures to Date (e)	Cost Variance (f=c-d) (+++)	% Cost Changes (g=f/c) (+++)	CIP Completion Date (h) (+)	Approved Completion Date (i) (++)	Forecast Completion Date (j)	Schedule Variance (Days) (k=i-j) (+++)
10014108 Canyon Tunnel - Hetchy Adit Rehab & OSH Bridge	DS	$30,138	$30,138	$30,138	$2,690	$0	0%	12/31/30	12/31/30	12/31/30	0
Utilities (Joint)											
10014110 Moccasin Wastewater Treatment Plant	CN	$15,377	$15,377	$15,377	$5,403	$0	0%	02/20/28	02/20/28	02/20/28	0

* Does not include projects in closeout, completed, not initiated, on hold, deleted projects, and projects combined with other projects.

**** Phase Status Legend**

PL Planning DS Design

BA Bid & Award CN Construction MP Multi-Phase

Footnotes:

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7. PROJECT STATUS REPORT

10035575 - SJPL Valve and Safe Entry Improvement

Project Description: San Joaquin Pipeline (SJPL) Nos. 1, 2, and 3 consist of three parallel transmission pipelines (completed in 1932, 1953, and 1968, respectively) that cross the San Joaquin Valley from the east of Foothill Tunnel at Oakdale Portal to the west of Coast Range Tunnel at Tesla Portal, a distance of approximately 48 miles. A fourth partial pipeline (SJPL 4 completed in 2012) consists of a 6.4-mile segment of pipe downstream of Oakdale and another 11-mile segment upstream of Tesla Portal. SJPLs deliver Tuolumne River water to the San Francisco Bay Area. They have been in service ranging from 11 to 91 years. SFPUC staff members and contractors need to enter the pipelines regularly to perform condition assessment, maintenance, and repair work. A recent hydraulic study shows that several of the existing valves in the SJPLs may be under-rated for the potential surge pressures that could be triggered from an unplanned closure of the valves at the downstream Tesla Ultraviolet Treatment Facility. For safety reasons, the SFPUC initiated this capital project to increase the pressure rating of the valves, provide safe pipeline isolations for personnel entry into the pipelines, and allow shutdown of any section of the SJPLs without a complete system shutdown.

Program: Water Infrastructure	**Project Status:** Multi-Phases	**Environmental Status:** Completed (Cat Ex)

Project Cost:

Approved	$ 157.75 M
Forecast	$ 157.75 M
Actual	$ 64.71 M

Project Schedule:

Approved 07/01/19	02/28/29
Forecast 07/01/19	02/28/29

Project Percent Complete: 43.0%

Key Milestones		Environmental Approval	Bid Advertisement	Construction NTP	Construction Final Completion
Current Forecast	A	01/27/22 A	12/25/21 A	05/16/22 A	09/19/25
	B	01/27/22 A	04/21/22 A	11/07/22 A	09/11/24 A
	C	01/27/22 A	11/28/23 A	05/13/24 A	01/28/26
	D	01/27/22 A	11/21/24 A	05/01/25 A	08/16/28
	E	08/10/22 A	09/21/23 A	02/26/24 A	07/29/25

Progress and Status:
This project is divided into five (5) subprojects: (A) Phase 1A – Pipeline 2 Tesla & Oakdale Entry Improvements – HH-1005; (B) Phase 1B – Pipelines 3&4 Tesla & Oakdale Entry Improvements – HH-1006; (C) Phase 2A – Crossover Valve Improvement Pipelines 2&3 – HH-1012; (D) Phase 2B/2C – Removable Spool Piece and Valve Improvements at Crossovers and P4J – HH-1016; and (E) Phase 3 – Tesla Surge Tower – HH-1009. Phase 1A (HH-1005): During wet testing, the newly installed knife gate valves failed to meet the American Water Works Association (AWWA) sealing standards. Rubber O-ring material and anti-galling ring material were found dislodged and exiting through the drain ports. Due to these failures, the project team and HHWP Operations rejected acceptance of the valves. The contractor has been notified and is required to submit a corrective action plan. Phase 1B (HH-1006): The contractor achieved final completion. The General Manager has approved the contract for closeout. Phase 2A (HH-1012): A leak occurred at one of the recently installed flanged-coupling adapters, resulting in flooding at the Roselle Valvehouse when the pipe was filled with water. The incident caused damage to electronic and mechanical equipment. The contractor has filed a claim with their insurance carriers and is developing a recovery plan to restore the facility. A temporary repair on the failed adapter was completed without affecting the water supply to the City. Phases 2B/2C (HH-1016): The Notice to Proceed for construction was issued. The contractor has begun submitting required documents and submittals. Phase 3 (HH-1009): The contractor achieved substantial completion.

Substantially Completed Tesla Surge Tower

Issues and Challenges:
The project team is working to find the resolution to the failed knife gate valves and to restore the service and equipment at the Roselle Valvehouse.

10041725 - SJPL Valve Remote Control and Monitoring

Project Description: Design, procure, and construct new SJPL remote supervisory controls that would enable remote operation from Moccasin to remotely operate valve actuators. The project includes data telemetry improvements, Remote Terminal Unit (RTU) installation/replacement, trans-valley communication system upgrades, power system upgrades, security improvements, and access improvements.

Program: Water Infrastructure	**Project Status:** Planning	**Environmental Status:** Not Initiated (Cat Ex)

Project Cost:

Approved	$ 38.74 M
Forecast	$ 38.74 M
Actual	$ 0.04 M

Project Schedule:

Approved 10/01/24	12/31/28
Forecast 12/01/24	06/30/31

Project Percent Complete: 1.5%

Key Milestones	Environmental Approval	Bid Advertisement	Construction NTP	Construction Final Completion
Current Forecast	07/28/28	07/29/28	03/30/29	12/30/30

Progress and Status:

A workshop was held in May with stakeholders. Currently the draft Needs Assessment Report is being reviewed. In the next quarter, a revised draft Needs Assessment Report will be submitted followed by a review workshop.

Issues and Challenges:

Schedule extension is due to delay in starting of the initial planning phase. Validation of the scope has also necessitated an extension of the schedule.

Oakdale Portal along the SJPL

10014079 - Cherry-Eleanor Pumps

Project Description: Replace and upgrade pumps in Cherry Pump Station with units that work with current operating strategies. The scope of work includes: 1) replacement of pumps, transformer, and pump motor starters; 2) installation of Programmable Logic controller (PLC), SCADA system, and fiber optics; and 3) improvement of the existing motor control center (MCC) building.

Program: Power Infrastructure	**Project Status:** Planning	**Environmental Status:** Not Initiated (TBD)

Project Cost:

Approved	$ 38.80 M
Forecast	$ 38.80 M
Actual	$ 0.37 M

Project Schedule:

Approved 01/01/25	06/30/31
Forecast 01/01/25	06/03/33

Project Percent Complete: 1.0%

Key Milestones	Environmental Approval	Bid Advertisement	Construction NTP	Construction Final Completion
Current Forecast	09/30/29	10/01/29	06/02/30	12/02/32

Progress and Status:

A workshop was held in May with stakeholders. Currently the draft Needs Assessment Report is being reviewed. In the next quarter, a revised draft Needs Assessment Report will be submitted followed by a review workshop.

Issues and Challenges:

Schedule extension is due to delay in starting of the initial planning phase. Validation of the scope has also necessitated an extension of the schedule.

Cherry-Eleanor Pump Station at Cherry Reservoir

10036809 - HHW - Moccasin Powerhouse Bypass Upgrade

Project Description: Provide a reliable hydraulic bypass and energy dissipation system, conveying water around the turbines to the Moccasin Powerhouse Tailrace. Upgrade/replace high-pressure energy-dissipating valves, control systems, and associated structures to absorb 1,147 feet of pressure head and 430 cubic feet per second flow without damage.

Program: Power Infrastructure	**Project Status:** Design	**Environmental Status:** Active (Cat Ex)

Project Cost:

Approved	$ 41.06 M
Forecast	$ 41.06 M
Actual	$ 3.45 M

Project Schedule:

Approved 09/18/20	12/01/27
Forecast 09/18/20	07/31/28

Project Percent Complete: 7.4%

Key Milestones	Environmental Approval	Bid Advertisement	Construction NTP	Construction Final Completion
Current Forecast	11/21/25	12/04/25	08/01/26	01/30/28

Progress and Status:

The project team conducted an Independent Technical Review (ITR) of the 95% design submittal, which identified significant hydraulic concerns. As a result, the team has postponed finalizing the design and advertising the contract to allow time to address the review findings. The design consultant is currently evaluating potential solutions and will present recommendations to project stakeholders by the end of July 2025. The Job Order Contract previously planned to complete the powerhouse tailrace penetration during the upcoming Mountain Tunnel 100-day shutdown has been canceled due to anticipated design changes. A revised project schedule will be developed once the design solutions are approved and the level of effort required to complete the final design is better understood.

Issues and Challenges:

At this time the design team is addressing concerns that were highlighted from the 95% review. The hydraulic review revealed the need to redesign elements of the bypass to smooth out flow to decrease cavitation and high velocity discharge. The Moccasin Powerhouse Bypass Project is a critical project and significant changes to the schedule may impact other projects at the powerhouse. The forecasted project completion date has been extended by 7 months; however, the project team is reviewing the impact on the overall project schedule including planned project outages and will update the forecast when impacts are better understood.

Location of New Valve House - Left of Exposed Penstocks

10014086 - Moccasin Powerhouse and GSU Rehabilitation

Project Description: The project is broken down into three components: 1) Generator Rehabilitation replace the entire generator and associated equipment, including new stator cores and coils, rotor poles, relays, and rotor rim; 2) GSU Replacement replace two of the three existing generator step-up transformers (GSUs), new foundations and oil containment, and relay upgrades; and 3) Power Plant Systems Upgrades replace the 480 V switchgear, 13.8 kV switchgear, motor control centers, main control boards, protective relays, cooling water piping, and improving oil containment systems.

Program: Power Infrastructure	**Project Status:** Multi-Phases	**Environmental Status:** Completed (Cat Ex)

Project Cost:

Approved	$ 100.56 M
Forecast	$ 126.50 M
Actual	$ 53.92 M

Project Schedule:

Approved 09/18/20	12/31/28
Forecast 09/18/20	03/31/30

Project Percent Complete: 59.7%

Key Milestones		Environmental Approval	Bid Advertisement	Construction NTP	Construction Final Completion
Current Forecast	A	09/28/20 A	11/20/20 A	06/07/21 A	06/26/23 A
	B	09/28/20 A	10/30/20 A	08/15/22 A	01/07/26
	C	09/28/20 A	02/28/26	11/01/26	03/31/29

Progress and Status:

For Subproject A - Moccasin Powerhouse Generator Step-Up (GSU's) Transformers, the project close out tasks for contract HH-1003R have been completed. For Subproject B - Moccasin Powerhouse Generators Rewind (DB-121R2), the unexpected pre-existing shaft alignment issues that were discovered last quarter continued to be addressed by the project team and Contractor. To address shaft alignment issues, the team proposed rehabilitating existing parts off-site to meet engineering specifications. Contractor will return to the site to continue generator alignment in August 2025. For Subproject C - Moccasin Powerhouse Systems Upgrade, the 95% design submittal was received in June 2025, but was rejected for quality concerns. The project team is working to address concerns and the 95% drawings are anticipated to be resubmitted in July 2025.

Measurements of Generator M1 Shaft Alignment

Issues and Challenges:

The variance between the approved budget and forecasted cost is due to increased cost contingency of the DB-121R2 contract as well as forecasted cost increases in Subproject C – Systems Upgrade, where higher costs are anticipated from scope refinement, higher construction and procurement costs, and additional construction management and support resource requirements. The Commission approved increases to cost and duration contingencies of DB-121R2 to address issues with the shaft alignment of Generator Unit M1. Substantial completion is now projected for November 2025. MPH System Upgrades design schedule was initially delayed due to the need to respond to a large number of 65% design review comments. Additionally, the 95% design package was rejected due to quality concerns. The project team is reviewing if there are any additional impacts on the overall project schedule including planned project outages and will report when impacts are better understood.

10014089 - Transmission Lines Clearance Mitigation

Project Description: This project will provide funding to implement mitigation measures to resolve clearance discrepancies. Mitigation options include but are not limited to new towers/tubular poles, new intervening poles, tower raises, ground lowering, and other structural improvements to the lattice towers.

Program: Power Infrastructure	**Project Status:** Bid and Award	**Environmental Status:** Active (Cat Ex)

Project Cost:

Approved	$ 83.68 M
Forecast	$ 106.74 M
Actual	$ 18.03 M

Project Schedule:

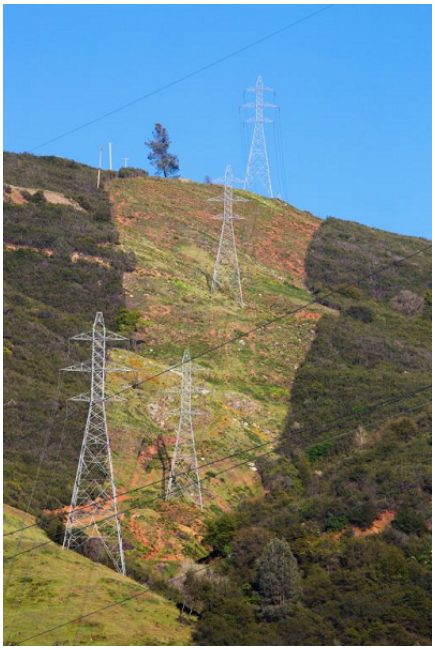
Approved 07/01/17	06/30/29
Forecast 07/01/17	06/30/29

Project Percent Complete: 28.7%

Key Milestones	Environmental Approval	Bid Advertisement	Construction NTP	Construction Final Completion
Current Forecast	06/02/26	04/24/25 A	11/07/26	12/29/28

Progress and Status:
The project will utilize a Progressive Design-Build contracting strategy. Progressive Design-Build Contract DB-139 was advertised in April and bid opening was in June. The proposals are currently being reviewed by the project team.

Issues and Challenges:
The budget and schedule have been updated to reflect scope changes for three additional detection sites that were added, and the project cost has been revised to include the adjusted escalation forecast. The added scope is necessary to be performed under this contract (DB-139) to complete all the identified remaining clearance detections.



Transmission Lines 5 & 6 in Moccasin

10014087 - Warnerville Substation Rehabilitation Project

Project Description: The additional funding request is to cover the remaining work for Warnerville Substation Rehabilitation Project. Under Design Build Contract #DB-127R, installation of some 230 kV equipment was deleted from the contract but procured, including circuit breakers, switches, insulators, and current voltage transformers. Remaining work includes the replacement of four oil circuit breakers, bushings, surge arrestors, disconnect switches, current voltage transformer, insulators, relay protection, and other ancillary equipment.

Program: Power Infrastructure	**Project Status:** Construction	**Environmental Status:** Completed (Cat Ex)

Project Cost:

Approved	$ 37.41 M
Forecast	$ 39.33 M
Actual	$ 27.09 M

Project Schedule:

Approved 09/01/15	11/25/26
Forecast 09/01/15	11/08/27

Project Percent Complete: 81.1%

Key Milestones		Environmental Approval	Bid Advertisement	Construction NTP	Construction Final Completion
Current Forecast	A	03/31/16 A	01/10/17 A	11/26/18 A	12/20/24 A
	B	10/24/24 A	04/24/25 A	12/18/25	05/08/27

Progress and Status:

This project is divided into two subprojects. Subproject A – Warnerville Substation Rehabilitation Phase 1 (DB-127R): The contract has been closed out. Subproject B – Warnerville Substation Rehabilitation Phase 2 (HH-1017): The contract was advertised in April 2025, and two bids were received and opened in June. Both bids came in below the Engineer's estimate. No bid protests were filed prior to the protest deadline. The project team is currently evaluating the qualifications of the bidders in accordance with the solicitation requirements. The savings from the low bid results will be assigned to the Director's Reserve of the project.

Issues and Challenges:

The increased cost and extended schedule duration that were previously reported are primarily driven by longer than expected high voltage equipment lead times and rising labor costs. Additionally, broader market conditions, including post-pandemic supply chain delays and labor shortages, have increased costs across all work scopes.

Existing Warnerville Substation Rehabilitation, 230kV Switch to be Replaced

10039568 - Moccasin Switchyard Rehabilitation

Project Description: Replace 115 kV disconnect switches, replace 115 kV bus configuration, replace 230 kV disconnect switches, change 230 kV bus configuration, replace 115 kV circuit breakers, add surge arresters, perform a fault study, perform a grounding study, improve switchyard grading, and replace fencing.

Program: Power Infrastructure	**Project Status:** Planning	**Environmental Status:** Not Initiated (TBD)

Project Cost:

Approved	$ 19.71 M
Forecast	$ 19.71 M
Actual	$ 0.54 M

Project Schedule:

Approved 11/01/22	01/31/30
Forecast 11/01/22	01/31/30

Project Percent Complete: 7.8%

Key Milestones	Environmental Approval	Bid Advertisement	Construction NTP	Construction Final Completion
Current Forecast	09/22/27	01/20/28	05/22/28	07/31/29

Progress and Status:

The design consultant is in the process of developing and analyzing alternatives. A draft Alternative Analysis Report (AAR) is expected in the next quarter.

Issues and Challenges:

None at this time.

Existing Moccasin Switchyard

10014088 - Moccasin Penstock Rehabilitation

Project Description: In order to meet the established level of service, mitigate potential risks, and avoid potential consequences of failure, SFPUC is considering replacing the penstocks so that the life of the asset will be extended for a minimum 75 years. Based on a preliminary study, a combination of a drop shaft, a tunnel and above grade pipes appears to be a favorable alternative. SFPUC will continue the study before determining the most appropriate alternative solution. For capital planning purposes, SFPUC assumes the alternative will include: 1) a drop shaft; 2) a new tunnel penstock; and 3) two above-grade penstocks.

Program: Joint Infrastructure	**Project Status:** Planning	**Environmental Status:** Not Initiated (EIR)

Project Cost:

Approved	$ 331.17 M
Forecast	$ 331.17 M
Actual	$ 9.07 M

Project Schedule:

Approved 02/03/14	12/08/34
Forecast 02/03/14	12/08/34

Project Percent Complete: 3.6%

Key Milestones	Environmental Approval	Bid Advertisement	Construction NTP	Construction Final Completion
Current Forecast	09/04/29	09/06/30	05/07/31	05/07/34

Progress and Status:

Additional alternatives were added to the draft Alternative Analysis Report (AAR) due to recent Right of Way developments and Raker Act interpretations that allowed consideration of two additional pipeline/tunnel alignments. Draft AAR and the proposed geotechnical investigation program will be modified to further consider the additional alignments.

Issues and Challenges:

None at this time.

Moccasin Penstock System along the Steep Section

10039680 - Moccasin Engineering and Records Building

Project Description: HHWP Project operations and administration is located in Moccasin, California, with facilities including buildings, office trailers, warehouses, shops, laboratories, and sheds. Many existing facilities are deteriorating, do not meet current building codes, and are incurring increased maintenance costs. HHWP needs to invest in new facilities to meet all applicable codes and standards; reduce maintenance costs; increase employee interconnectivity and productivity; properly store all staff, materials, records, and equipment; and meet energy-efficiency standards. HHWP prepared a report titled "Moccasin Facilities Upgrade Project Alternatives Analysis and Evaluation Report Update". The report identified long-term needs for creating adequate office space for current staff in Moccasin. In addition, the report evaluated the needs for new, dedicated materials storage space, new records and archives space with offices, new space for servers, and parking space for staff. The Moccasin Engineering and Records Building project will address the need for permanent office space by constructing a new two-story building. Hetch Hetchy and Infrastructure staff are currently located in temporary trailers that have exceeded their useful life. The new building will provide office space for Hetch Hetchy Engineering, Records, Energy Services, Infrastructure, and ITS staff. The scope also includes a secure server room, parking lot, and archive/records storage. The budget and schedule for the project will be modified to provide permanent office space for both Hetch Hetchy and Infrastructure staff and to address escalation since the completion of the 2020 Alternatives Analysis Report estimate.

Program: Joint Infrastructure	**Project Status:** Design	**Environmental Status:** Not Initiated (Cat Ex)

Project Cost:

Approved	$ 88.73 M
Forecast	$ 88.73 M
Actual	$ 2.85 M

Project Schedule:

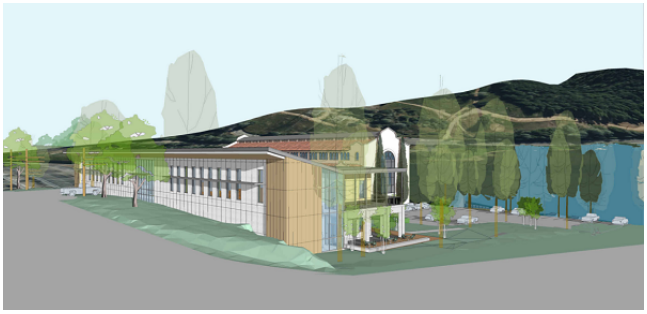
Approved 12/14/22	05/31/29
Forecast 12/14/22	05/31/29

Project Percent Complete: 6.5%

Key Milestones	Environmental Approval	Bid Advertisement	Construction NTP	Construction Final Completion
Current Forecast	10/21/25	05/25/26	02/01/27	11/30/28

Progress and Status:
The Design Development package is under review. Project team presented and obtained Civic Design Review Phase 2 approval.

Issues and Challenges:
None at this time.



Engineering and Records Building 50% Design Development (DD) Rendering

10041727 - Moccasin Warehouse Building

Project Description: The Moccasin Old Powerhouse was constructed in 1926 and abandoned in the 1960s. The building has multiple structural and nonstructural issues, including cracks, spalling of structural concrete, water intrusion, broken windows, settlement, hazardous materials, and seismic deficiencies. The building is currently used for storage of large equipment and critical spares for the Hetch Hetchy Water and Power system. As a result of the multiple issues, it was determined to demolish the building. A new warehouse is therefore necessary for the storage of the large equipment and critical spares for the Hetch Hetchy Water and Power system that was previously stored in the Moccasin Old Powerhouse. This project includes a construction of a new 9,000-square-foot warehouse within the Moccasin campus to store large equipment and critical spare components for the Hetch Hetchy Water and Power System. The building will include office space for warehouse staff including records retention for warehouse and materials documentation.

Program: Joint Infrastructure	**Project Status:** Planning	**Environmental Status:** Active (TBD)

Project Cost:

Approved	$ 26.29 M
Forecast	$ 35.16 M
Actual	$ 0.20 M

Project Schedule:

Approved 01/01/25	04/01/31
Forecast 10/15/24	04/01/31

Project Percent Complete: 3.0%

Key Milestones	Environmental Approval	Bid Advertisement	Construction NTP	Construction Final Completion
Current Forecast	09/10/27	06/22/28	04/02/29	10/01/30

Progress and Status:

The project team presented various options for the new warehouse building location to HHWP. Design team is working on the conceptual design package.

Issues and Challenges:

The warehouse building size was requested by HHWP to be increased from 9,000 square feet to 15-20,000 square feet, resulting in a scope increase and variance between the forecasted cost and the approved budget. The project team will reassess the project scope, schedule, and budget after receiving a third-party cost estimate, expected by next quarter.

Existing Warehouse, NW Elevation

10032903 - O'Shaughnessy Dam Outlet Works Phase 1

Project Description: O'Shaughnessy Dam was completed in 1923 and raised in 1938. A condition assessment of the dam outlet works revealed the need for improvements to the existing outlet works, including gates and valves (1923 construction), to ensure safe and reliable operation. Based on engineering studies and prioritization of asset condition, needs, and risks, improvements to the existing outlet works will be implemented in two phases. Funding for this project will include work under Phase 1. Phase 2 of the O'Shaughnessy Dam Outlet Improvement Project begins in 2025. Work under Phase 1 will include: (1) replacement of two existing instream flow release valves; (2) improvements to access and drainage in the dam gallery and stairs; (3) installation of new bulkheads for the outlet intake; and (4) a planning phase and scoping for the slide gates and drum gates improvements.

Program: Joint Infrastructure	**Project Status:** Multi-Phases	**Environmental Status:** Completed (Cat Ex)

Project Cost:

Approved	$ 43.73 M
Forecast	$ 43.73 M
Actual	$ 29.93 M

Project Schedule:

Approved 02/01/18	12/31/25
Forecast 02/01/18	06/30/26

Project Percent Complete: 79.9%

Key Milestones		Environmental Approval	Bid Advertisement	Construction NTP	Construction Final Completion
Current Forecast	A	12/02/22 A	01/13/23 A	05/24/24 A	08/30/25
	B	12/02/22 A	05/03/24 A	11/12/24 A	11/06/25
	C	12/02/22 A	03/13/23 A	08/28/23 A	09/14/25

Progress and Status:
This project is divided into five subprojects. Subproject A (Bulkheads): Under Contract No. DB-135, all deliverables have been received and the contractor has reached substantial completion. Subproject B (Drainage & Miscellaneous Dam Improvements): Under Contract No. HH-1015, the contractor completed concrete demolition, drainage cleaning tests, and a mock-up of the new steel platform. Subproject C (Instream Flow Release (IFR) Valve Replacement, HH-1011): The cavitation issues encountered during high-flow releases have been resolved. The contractor has achieved substantial completion, and the new IFR valves have been turned over to Operations. The Commission approved an increase in contract contingency to cover the additional work required. Subproject D (Slide Gates): The project team continued addressing comments on the draft Needs Assessment Report. Subproject E (Drum Gates): The project team continued reviewing and incorporating comments on the combined draft Needs Assessment and Alternatives Analysis Report.

Issues and Challenges:
The variance between the approved and forecasted project completion date is due to the longer-than-expected coordination of construction water treatment and discharge requirements for the Drainage & Miscellaneous Improvements construction contract (Subproject B). For Subproject C, the Commission approved an increase in contingency to cover the additional work required and the cavitation issues encountered during high-flow releases have been resolved.

Subproject B Drainage & Misc Improvements - Site Preparation for Concrete Demolition within Tunnel

10037351 - Moccasin Dam & Reservoir Long Term Improvement

Project Description: A heavy storm event in 2018 caused significant damage to the auxiliary spillway, upstream trash rack and diversion, and downstream area. Subsequent engineering studies concluded that improvements are needed to increase the spillway capacity to safely pass the updated design flood without overtopping the existing embankment dam. This project is needed for dam safety. This project will construct a new concrete spillway with adequate flow capacity along the alignment of the existing auxiliary spillway and additional flood protection to the Moccasin project facilities.

Program: Joint Infrastructure	**Project Status:** Design	**Environmental Status:** Active (TBD)

Project Cost:

Approved	$ 142.19 M
Forecast	$ 164.73 M
Actual	$ 6.68 M

Project Schedule:

Approved 05/03/21	12/31/34
Forecast 05/03/21	06/30/33

Project Percent Complete: 6.2%

Key Milestones	Environmental Approval	Bid Advertisement	Construction NTP	Construction Final Completion
Current Forecast	09/30/27	09/16/25	10/01/28	06/30/32

Progress and Status:

The 35% design was completed this quarter, marking a key milestone for the project. Geotechnical data review and analysis to support the design effort have also been finalized. The project team is now preparing for the next phase of design development. The current design consultant will transition to support the Water Program Management Contract. To avoid any conflict of interest, SFPUC is in the process of procuring a new consultant to complete the design and provide support during the construction phase. In addition, the General Manager has approved the use of the Construction Manager/General Contractor (CM/GC) delivery method for this project.

Issues and Challenges:

The variance between the forecasted cost and the approved budget is due to projected cost increase in the 35% cost estimate and is primarily driven by recent increases in concrete and steel prices. The project team continues to monitor market trends and assess mitigation strategies as the design advances.

Existing Auxiliary Spillway and Grizzly Gulch Canal

10014115 - Cherry Dam Spillway - Short Term Improvements

Project Description: Cherry Dam Spillway is a 334 foot-wide ogee-type concrete weir that discharges into an unlined adjacent channel. The spillway capacity is designed for 52,000 cfs. A spill of 1,500 cfs in 2010 resulted in significant erosion damage to the unlined spill channel, large-scale erosion along the western segment of Cherry Dam, and flooding of Cherry Power Tunnel Adit and a campground downstream. Engineering studies showed that remedial measures and erosion protection for the spill channel are needed to ensure that spill flows from Cherry Valley Dam spillway can be contained without erosion damage to the existing embankment dam and downstream area. Studies also found that long-term improvement to the spillway is needed to increase the hydraulic capacity of the spillway to safely pass the design flood. This project is a short-term interim solution until the long-term spillway improvements are implemented. This project will reestablish containment for the breached spill channel section from the 2010 spill and install armoring to protect the upper spill channel section against erosion from spillway releases of up to 2,000 cubic feet per second.

Program: Joint Infrastructure	**Project Status:** Design	**Environmental Status:** Active (MND)

Project Cost:

Approved	$ 14.89 M
Forecast	$ 14.89 M
Actual	$ 3.47 M

Project Schedule:

Approved 03/01/21	06/30/27
Forecast 03/01/21	06/30/27

Project Percent Complete: 24.0%

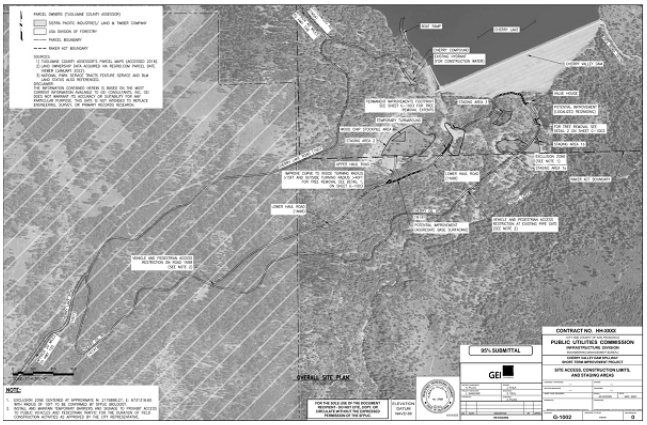
Key Milestones	Environmental Approval	Bid Advertisement	Construction NTP	Construction Final Completion
Current Forecast	12/31/25	09/29/25	03/02/26	12/31/26

Progress and Status:

The consultant submitted the 95% Design Package in June. The package is being reviewed. The project team has started setting up a Job Order Contract (JOC) task order for tree removal prior to the bird nesting season.

Issues and Challenges:

None at this time.



Site access, Construction Limits & Staging Areas

10030759 - Eleanor Dam Rehabilitation

Project Description: Mitigation alternatives will include improvements to increase spill capacity to safely pass the design flood, installation of a liner on the upstream face of the dam, concrete repairs, valve replacement, and installation of concrete lining and riprap for foundation armoring, and replacement of the existing bridge.

Program: Joint Infrastructure	**Project Status:** Multi-Phases	**Environmental Status:** Active (Various)

Project Cost:

Approved	$ 113.87 M
Forecast	$ 113.87 M
Actual	$ 1.21 M

Project Schedule:

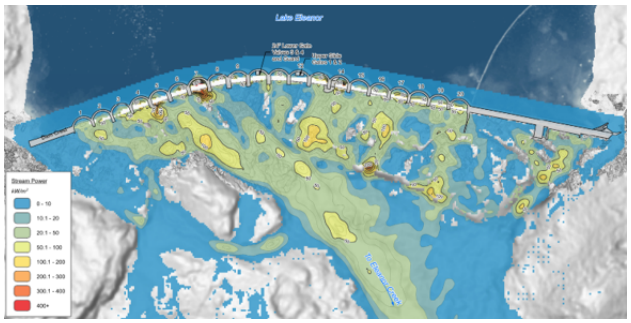
Approved 06/01/20	12/31/38
Forecast 06/01/20	12/31/38

Project Percent Complete: 2.9%

Key Milestones		Environmental Approval	Bid Advertisement	Construction NTP	Construction Final Completion
Current Forecast	A	07/31/25	09/29/25	03/02/26	12/31/26
	B	12/31/32	01/01/33	10/01/33	12/31/37

Progress and Status:

This project is divided into two subprojects: (A) the Eleanor Dam Bridge Interim Repairs and (B) the Eleanor Dam and Bridge Long-Term Rehabilitation. For subproject (A): The consultant continued development of the 95% Design Package, which is scheduled for submittal in July. The project team is also preparing to conduct the bridge overlay material mock-up next quarter. For subproject (B): The project team received the draft Needs Assessment Review Memo and Erodibility Analysis Report and shared this information amongst project stakeholders. The project objective is being confirmed, and then the Needs Assessment Review Memo will be finalized. The team continued to work with Operations department to define the project objectives and scope.



Erodibility Analysis - Stream Power Model

Issues and Challenges:

None at this time.

10039119 - Early Intake Dam - Long Term

Project Description: Remove the existing deteriorated dam and construct a new concrete diversion structure and conveyance system within the existing Raker Act boundary to divert flows from Cherry Creek and Tuolumne River upstream of Kirkwood Powerhouse into Mountain Tunnel for SFPUC customers during emergencies.

Program: Joint Infrastructure	**Project Status:** Planning	**Environmental Status:** Not Initiated (TBD)

Project Cost:

Approved	$ 100.07 M
Forecast	$ 1.20 M
Actual	$ 0.90 M

Project Schedule:

Approved 07/01/23	12/31/35
Forecast 07/01/23	12/31/35

Project Percent Complete: 2.7%

Key Milestones	Environmental Approval	Bid Advertisement	Construction NTP	Construction Final Completion
Current Forecast	06/28/30	07/01/30	04/01/31	12/31/34

Progress and Status:

The project team incorporated review comments on the draft Alternatives Analysis Report (AAR). The project is currently on hold to allow time for further review and alignment within the Water Enterprise on the next steps before proceeding with additional work.

Issues and Challenges:

The project will be re-baselined when sufficient funding is available in the capital program.

Early Intake Dam Spillway at Right Abutment

10014114 - Mountain Tunnel Improvement Project

Project Description: Constructed between 1917 and 1925, Mountain Tunnel (MT) is a critical, nonredundant link in the Hetch Hetchy Regional Water System, conveying SFPUC water supply from Kirkwood Powerhouse to Priest Reservoir. Due to the tunnel's 90 years of operation, deferred maintenance, and construction deficiencies from the early 1900s, sections of the tunnel have deteriorated, some more extensively than others. The Mountain Tunnel Inspection and Repairs Project provided a tunnel inspection in 2017 to update the Condition Assessment conducted in 2008. Short-term repairs were also made in 2017 and 2018 to reduce the risk of failures in the concrete lining prior to implementation of the long-term project. The Mountain Tunnel Improvements (Rehabilitation)Project was selected for the design and construction of the preferred engineering alternative that will keep this vital component of the Hetch Hetchy Regional Water System in reliable service for years to come. The budget and schedule are based on the Mountain Tunnel Improvements Project construction phase, which is anticipated to take place between 2021 and 2027. This is the water funded portion of the Mountain Tunnel projects. For the Mountain Tunnel Improvements Project, the water portion will rehabilitate the inside of the tunnel and extend the siphon at South Fork, along with related safety improvements to the roadways that access the Mountain Tunnel.

Program: Joint Infrastructure	**Project Status:** Construction	**Environmental Status:** Completed

Project Cost:

Approved	$ 268.67 M
Forecast	$ 268.67 M
Actual	$ 171.91 M

Project Schedule:

Approved 10/03/11	06/03/27
Forecast 10/03/11	06/03/27

Project Percent Complete: 70.8%

Key Milestones		Environmental Approval	Bid Advertisement	Construction NTP	Construction Final Completion
Current Forecast	A	01/14/20 A	11/13/19 A	01/29/21 A	12/03/26
	B	N/A	12/11/23 A	09/23/24 A	06/30/26

Progress and Status:

Subproject A (HH-1000R) Mountain Tunnel Improvement Contract: Work during this quarter at the Flow Control Facility consisted of demolishing and rebuilding the building foundation, and miscellaneous mechanical work in the bottom of the shaft. Fabrication of the two remaining Double Disc Knife Gate Valves and the two sleeve valves continued off site. Work at the Priest Adit involved chipping of the walls to establish proper clearance inside the adit prior to constructing the concrete final liner, applying waterproofing membrane and installation of the first section of lining rebar, and placement of the first section of forms for the concrete final lining. Work at the Early Intake Adit involved removal of the concrete frame and chipping of the walls to obtain proper clearance of the adit. Fabrication of the steel bulkhead door was completed off site. Outage 5 commissioning meetings between the City and the contractor have been ongoing. Subproject B (HH-1013) Moccasin Water System Filtration Plant: Site grading was performed and riprap was installed on the sloped ground face underneath the future building. The building foundation was constructed, and the building floor beams were installed. The concrete backwash tanks were constructed

Installing Forms for the Concrete Lining in the Priest Adit

Issues and Challenges:

None at this time.

10037077 - Moccasin Old Powerhouse Hazard Mitigation

Project Description: Design and install mitigation measures to prevent the building from collapsing and to prevent hazardous materials (such as lead-based paint and asbestos) from contaminating Moccasin Reservoir.

Program: Joint Infrastructure	**Project Status:** Planning	**Environmental Status:** Active (EIR)

Project Cost:

Approved	$ 13.47 M
Forecast	$ 13.47 M
Actual	$ 0.97 M

Project Schedule:

Approved 01/01/21	07/01/32
Forecast 01/01/21	07/01/32

Project Percent Complete: 13.9%

Key Milestones	Environmental Approval	Bid Advertisement	Construction NTP	Construction Final Completion
Current Forecast	12/31/28	01/01/30	08/31/30	09/01/31

Progress and Status:

The project team continues to work on the environmental review to develop the California Environmental Quality Act Environmental Impact Report.

Issues and Challenges:

None at this time.

Existing Moccasin Old Powerhouse

10014108 - Canyon Tunnel - Hetchy Adit Rehab & OSH Bridge

Project Description: The project is to install a new reinforced concrete plug downstream of the existing plug in Hetchy Adit and rehabilitate O'Shaughnessy Adit Access Bridge including sub-structure retrofit and super structure replacement.

Program: Joint Infrastructure	**Project Status:** Design	**Environmental Status:** Active (MND)

Project Cost:

Approved	$ 30.14 M
Forecast	$ 30.14 M
Actual	$ 2.69 M

Project Schedule:

Approved 02/03/14	12/31/30
Forecast 02/03/14	12/31/30

Project Percent Complete: 20.0%

Key Milestones	Environmental Approval	Bid Advertisement	Construction NTP	Construction Final Completion
Current Forecast	08/31/26	09/01/26	05/01/27	05/01/30

Progress and Status:

Independent cost estimate was initiated on the 95% design package. First draft Mitigated Negative Declaration (MND) was developed and reviewed by the San Francisco Planning Department.

Issues and Challenges:

None at this time.

Canyon Tunnel - Hetchy Adit Bulkhead

10014110 - Moccasin Wastewater Treatment Plant

Project Description: This project will replace the existing plant with a package two-train sequencing batch reactor (SBR) plant with grit removal and screening facilities, upgraded electrical and flow monitoring systems, flow equalization, SCADA instrumentation and automation features, and related site improvements.

Program: Joint Infrastructure	**Project Status:** Construction	**Environmental Status:** Completed (Cat Ex)

Project Cost:

Approved	$ 15.38 M
Forecast	$ 15.38 M
Actual	$ 5.40 M

Project Schedule:

Approved 01/03/22	02/20/28
Forecast 01/03/22	02/20/28

Project Percent Complete: 37.8%

Key Milestones	Environmental Approval	Bid Advertisement	Construction NTP	Construction Final Completion
Current Forecast	02/22/23 A	10/12/23 A	06/03/24 A	12/29/26

Progress and Status:

The construction is in progress. The contractor continues to build the Sequential Batch Reactor structure and placed the concrete of the walls. Also, the electricity transformer, which is a long-lead item, was delivered to the site ahead of the schedule.

Issues and Challenges:

None at this time.

Sequential Batch Reactor Walls

8. ON-GOING CONSTRUCTION*

Construction Contract	Schedule			Budget		Variance (Approved - Forecast)		Percent Complete
	NTP Date	Approved Construction Final Completion	Current Forecasted Construction Final Completion**	Approved Contract Cost	Current Forecasted Cost**	Schedule (Cal Days)	Cost	
Water Infrastructure								
10035575 - SJPL Valve & Safe Entry Improvement - (Contract A, HH-1005)	05/16/22	02/01/25	09/19/25	$15,536,964	$15,536,964	(230)	$0	97.8%
10035575 - SJPL Valve & Safe Entry Improvement - (Contract C, HH-1012)	05/13/24	01/28/26	01/28/26	$7,791,640	$7,791,640	0	$0	69.7%
10035575 - SJPL Valve & Safe Entry Improvement - (Contract D, HH-1016)	05/01/25	05/01/25	08/16/28	$50,296,818	$50,296,818	(1,203)	$0	0.0%
10035575 - SJPL Valve & Safe Entry Improvement - (Contract E, HH-1009)	02/26/24	07/29/25	07/29/25	$11,451,268	$11,451,268	0	$0	87.6%
Power Infrastructure								
10014086 - Moccasin Powerhouse Generator Rehab - (Contract B, DB-121R2)	08/15/22	06/17/25	01/07/26	$29,898,160	$30,243,702	(204)	($345,541)	93.4%
Joint Infrastructure								
10032903 - O'Shaughnessy Dam Outlet Works Phase 1 - Instream Flow Release (Contract C, HH-1011)	08/28/23	05/24/25	09/14/25	$6,528,204	$6,795,640	(113)	($267,436)	92.8%
10032903 - O'Shaughnessy Dam Outlet Works Phase 1 - Bulkheads (Contract A, DB-135)	05/24/24	08/30/25	08/30/25	$6,359,850	$6,359,850	0	$0	100.0%
10032903 - O'Shaughnessy Dam Outlet Works Phase 1 - Drainage & Misc. Dam Improvements (Contract B, HH-1015)	11/12/24	11/06/25	11/06/25	$5,370,955	$5,370,955	0	$0	32.4%
10014114 - Mountain Tunnel Improvement - (HH-1000R)	01/29/21	12/03/26	12/03/26	$141,920,409	$141,920,409	0	$0	73.0%

Note: * This table reflects Active Construction Contracts with an original contract amount greater than $1M.

** The Forecasted Cost includes all approved, pending, and potential change orders; and Forecast Final Completion includes all approved, pending, and potential change orders, and trends.

Construction Contract	Schedule			Budget		Variance (Approved - Forecast)		Percent Complete
	NTP Date	Approved Construction Final Completion	Current Forecasted Construction Final Completion**	Approved Contract Cost	Current Forecasted Cost**	Schedule (Cal Days)	Cost	
10014114 - Mountain Tunnel Improvement - (HH-1013)	09/23/24	06/30/26	06/30/26	$4,189,035	$4,189,035	0	$0	17.4%
10014110 - Moccasin Wastewater Treatment Plant - (HH-1010)	06/03/24	12/29/26	12/29/26	$7,535,462	$7,535,462	0	$0	27.6%

	Approved Contract Cost	Current Forecast Cost	Variance	
			Cost	Percent
Program Total for On-Going Construction	**$286,878,765**	**$287,491,743**	**($612,978)**	**(0.2%)**

Note: * This table reflects Active Construction Contracts with an original contract amount greater than $1M.

** The Forecasted Cost includes all approved, pending, and potential change orders; and Forecast Final Completion includes all approved, pending, and potential change orders, and trends.

9. PROJECTS IN CLOSEOUT

There are no projects in closeout.

10. COMPLETED PROJECTS

Project Title	Approved Project Completion	Actual Project Completion	Approved Project Budget	Project Expenditures To Date
Power Infrastructure				
10035721 - Transmission Lines 7/8 Upgrades	01/31/25	03/07/25	$37,327,197	$32,497,478
TOTAL			**$37,327,197**	**$32,497,478**

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APPENDICES

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APPENDIX A. PROJECT DESCRIPTIONS

WATER INFRASTRUCTURE

Water Conveyance (Water)

10035575 SJPL Valve and Safe Entry Improvement

San Joaquin Pipeline (SJPL) Nos. 1, 2, and 3 consist of three parallel transmission pipelines (completed in 1932, 1953, and 1968, respectively) that cross the San Joaquin Valley from the east of Foothill Tunnel at Oakdale Portal to the west of Coast Range Tunnel at Tesla Portal, a distance of approximately 48 miles. A fourth partial pipeline (SJPL 4 completed in 2012) consists of a 6.4-mile segment of pipe downstream of Oakdale and another 11-mile segment upstream of Tesla Portal. SJPLs deliver Tuolumne River water to the San Francisco Bay Area. They have been in service ranging from 11 to 91 years. SFPUC staff members and contractors need to enter the pipelines regularly to perform condition assessment, maintenance, and repair work. A recent hydraulic study shows that several of the existing valves in the SJPLs may be under-rated for the potential surge pressures that could be triggered from an unplanned closure of the valves at the downstream Tesla Ultraviolet Treatment Facility. For safety reasons, the SFPUC initiated this capital project to increase the pressure rating of the valves, provide safe pipeline isolations for personnel entry into the pipelines, and allow shutdown of any section of the SJPLs without a complete system shutdown.

SJPL Valve Remote Control and Monitoring

Design, procure, and construct new SJPL remote supervisory controls that would enable remote operation from Moccasin to remotely operate valve actuators. The project includes data telemetry improvements, Remote Terminal Unit (RTU) installation/replacement, trans-valley communication system upgrades, power system upgrades, security improvements, and access improvements.

Water Infrastructure Project Development

10014072 WATER ONLY/PROJ DEV

The Project Development (PD) Account captures Program-level expenditures. The project provides programmatic support for Water funded capital projects. The following charges are allocated to the PD Account: 1) task orders for overall program management and project prioritization tasks, where the costs should be distributed over all CIP Projects; 2) infrastructure and Hetch Hetchy staff performing program-level tasks, including capital plan development, budget management (including fund management and cost reallocations), and unifier and quarterly report generation tasks, where the costs should be distributed over all CIP Projects; 3) portal support for the existing SharePoint Portal (including document management and project dashboard reporting); 4) work outreach program; and 5) City Attorney charges for contract development.

APPENDIX A. PROJECT DESCRIPTIONS

POWER INFRASTRUCTURE

Powerhouse

10036809 Moccasin Powerhouse Bypass Upgrades

Provide a reliable hydraulic bypass and energy dissipation system, conveying water around the turbines to the Moccasin Powerhouse Tailrace. Upgrade/replace high-pressure energy-dissipating valves, control systems, and associated structures to absorb 1,147 feet of pressure head and 430 cubic feet per second flow without damage.

10014086 Moccasin Powerhouse and GSU Rehabilitation

The project is broken down into three components: 1) Generator Rehabilitation – replace the entire generator and associated equipment, including new stator cores and coils, rotor poles, relays, and rotor rim; 2) GSU Replacement – replace two of the three existing generator step-up transformers (GSUs), new foundations and oil containment, and relay upgrades; and 3) Power Plant Systems Upgrades – replace the 480 V switchgear, 13.8 kV switchgear, motor control centers, main control boards, protective relays, cooling water piping, and improving oil containment systems.

Transmission Lines

10014089 Transmission Lines Clearance Mitigation

This project will provide funding to implement mitigation measures to resolve clearance discrepancies. Mitigation options include but are not limited to new towers/tubular poles, new intervening poles, tower raises, ground lowering, and other structural improvements to the lattice towers.

10035721 Transmission Lines 7/8 Upgrades

This project develops the scope of work, design, and contract documents necessary to bid, award, and manage the reconductoring contract. Reconductoring will include replacement of the existing 115 kV conductors on Lines 7/8 from Warnerville to Standiford substations, resulting in increased capacity and resolving clearance detections.

Switchyard & Substations (Power)

10014087 Warnerville Substation Rehabilitation

The additional funding request is to cover the remaining work for Warnerville Substation Rehabilitation Project. Under Design Build Contract #DB-127R, installation of some 230 kV equipment was deleted from the contract but procured, including circuit breakers, switches, insulators, and current voltage transformers. Remaining work includes the replacement of four oil circuit breakers, bushings, surge arrestors, disconnect switches, current voltage transformer, insulators, relay protection, and other ancillary equipment.

10039568 Moccasin Switchyard Rehabilitation

Replace 115 kV disconnect switches, replace 115 kV bus configuration, replace 230 kV disconnect switches, change 230 kV bus configuration, replace 115 kV circuit breakers, add surge arresters, perform a fault study, perform a grounding study, improve switchyard grading, and replace fencing.

Dams & Reservoirs (Power)

10014079 Cherry-Eleanor Pumps

Replace and upgrade pumps in Cherry Pump Station with units that work with current operating strategies. The scope of work includes: 1) replacement of pumps, transformer, and pump motor starters; 2) installation of Programmable Logic controller (PLC), SCADA system, and fiber optics; and 3) improvement of the existing motor control center (MCC) building.

Power Infrastructure Project Development

10014092 POWER ONLY/PROJ DEVELP

The Project Development (PD) Account captures program-level expenditures. The project provides programmatic support for Power funded capital projects. The following charges are allocated to the PD Account: 1) task orders for overall program management and project prioritization tasks, where the costs should be distributed over all CIP Projects; 2) infrastructure and Hetch Hetchy staff performing program-level tasks, including capital plan development, budget management (including fund management and cost reallocations), and unifier and quarterly report generation tasks, where the costs should be distributed over all CIP Projects; 3) portal support for the existing SharePoint Portal (including document management and project dashboard reporting); 4) work outreach program; and 5) City Attorney charges for contract development.

APPENDIX A. PROJECT DESCRIPTIONS

JOINT INFRASTRUCTURE

Water Conveyance (Joint)

10014088 Moccasin Penstock Rehabilitation

In order to meet the established level of service, mitigate potential risks, and avoid potential consequences of failure, SFPUC is considering replacing the penstocks so that the life of the asset will be extended for another 75 to 100 years. Based on a preliminary study, a combination of a drop shaft, a tunnel and above grade pipes appears to be a favorable alternative. SFPUC will continue the study before determining the most appropriate alternative solution. For capital planning purposes, SFPUC assumes the alternative will include the following major elements: • A drop shaft of about 850 feet deep, • A new tunnel penstock of about 3,100 feet, and • A two 72 in. above-grade penstocks with a total length of 3,000 feet

Buildings (Joint)

10039680 Moccasin Engineering and Records Building

HHWP Project operations and administration is located in Moccasin, California, with facilities including buildings, office trailers, warehouses, shops, laboratories, and sheds. Many existing facilities are deteriorating, do not meet current building codes, and are incurring increased maintenance costs. HHWP needs to invest in new facilities to meet all applicable codes and standards; reduce maintenance costs; increase employee interconnectivity and productivity; properly store all staff, materials, records, and equipment; and meet energy-efficiency standards. HHWP prepared a report titled "Moccasin Facilities Upgrade Project – Alternatives Analysis and Evaluation Report Update". The report identified long-term needs for creating adequate office space for current staff in Moccasin. In addition, the report evaluated the needs for new, dedicated materials storage space, new records and archives space with offices, new space for servers, and parking space for staff. The Moccasin Engineering and Records Building project will address the need for permanent office space by constructing a new two-story building. Hetch Hetchy and Infrastructure staff are currently located in temporary trailers that have exceeded their useful life. The new building will provide office space for Hetch Hetchy Engineering, Records, Energy Services, Infrastructure, and ITS staff. The scope also includes a secure server room, parking lot, and archive/records storage. The budget and schedule for the project will be modified to provide permanent office space for both Hetch Hetchy and Infrastructure staff and to address escalation since the completion of the 2020 Alternatives Analysis Report estimate.

10041727 Moccasin Warehouse Building

The Moccasin Old Powerhouse was constructed in 1926 and abandoned in the 1960s. The building has multiple structural and nonstructural issues, including cracks, spalling of structural concrete, water intrusion, broken windows, settlement, hazardous materials, and seismic deficiencies. The building is currently used for storage of large equipment and critical spares for the Hetch Hetchy Water and Power system. As a result of the multiple issues, it was determined to demolish the building. A new warehouse is therefore necessary for the storage of the large equipment and critical spares for the Hetch Hetchy Water and Power system that was previously stored in the Moccasin Old Powerhouse. This project includes a construction of a new 9,000-square-foot warehouse within the Moccasin campus to store large equipment and critical spare components for the Hetch Hetchy Water and Power System. The building will include office space for warehouse staff including records retention for warehouse and materials documentation.

Dams & Reservoirs (Joint)

10032903

O'Shaughnessy Dam Outlet Works Phase 1

O'Shaughnessy Dam was completed in 1923 and raised in 1938. A condition assessment of the dam outlet works revealed the need for improvements to the existing outlet works, including gates and valves (1923 construction), to ensure safe and reliable operation. Based on engineering studies and prioritization of asset condition, needs, and risks, improvements to the existing outlet works will be implemented in two phases. Funding for this project will include work under Phase 1. Phase 2 of the O'Shaughnessy Dam Outlet Improvement Project begins in 2025. Work under Phase 1 will include: (1) replacement of two existing instream flow release valves; (2) improvements to access and drainage in the dam gallery and stairs; (3) installation of new bulkheads for the outlet intake; and (4) a planning phase and scoping for the slide gates and drum gates improvements.

10037351 Moccasin Dam & Reservoir Long Term Improvements

A heavy storm event in 2018 caused significant damage to the auxiliary spillway, upstream trash rack and diversion, and downstream area. Subsequent engineering studies concluded that improvements are needed to increase the spillway capacity to safely pass the updated design flood without overtopping the existing embankment dam. This project is needed for dam safety. This project will construct a new concrete spillway with adequate flow capacity along the alignment of the existing auxiliary spillway and additional flood protection to the Moccasin project facilities.

10014115 Cherry Dam Spillway - Short Term Improvements

Cherry Dam Spillway is a 334 foot-wide ogee-type concrete weir that discharges into an unlined adjacent channel. The spillway capacity is designed for 52,000 cfs. A spill of 1,500 cfs in 2010 resulted in significant erosion damage to the unlined spill channel, large-scale erosion along the western segment of Cherry Dam, and flooding of Cherry Power Tunnel Adit and a campground downstream. Engineering studies showed that remedial measures and erosion protection for the spill channel are needed to ensure that spill flows from Cherry Valley Dam spillway can be contained without erosion damage to the existing embankment dam and downstream area. Studies also found that long-term improvement to the spillway is needed to increase the hydraulic capacity of the spillway to safely pass the design flood. This project is a short-term interim solution until the long-term spillway improvements are implemented. This project will reestablish containment for the breached spill channel section from the 2010 spill and install armoring to protect the upper spill channel section against erosion from spillway releases of up to 2,000 cubic feet per second.

10030759 Eleanor Dam Rehabilitation

Mitigation alternatives will include improvements to increase spill capacity to safely pass the design flood, installation of a liner on the upstream face of the dam, concrete repairs, valve replacement, and installation of concrete lining and riprap for foundation armoring, and replacement of the existing bridge.

10039119 Early Intake Dam - Long Term

Remove the existing deteriorated dam and construct a new concrete diversion structure and conveyance system within the existing Raker Act boundary to divert flows from Cherry Creek and Tuolumne River upstream of Kirkwood Powerhouse into Mountain Tunnel for SFPUC customers during emergencies.

O'Shaughnessy Dam Outlet Works Phase 2

O'Shaughnessy Dam was completed in 1923 and raised in 1938. A condition assessment of the dam outlet works revealed the need for improvements to the existing outlet works, including gates and valves (1923 construction), to ensure safe and reliable operation. Based on engineering studies and prioritization of asset condition, needs, and risks, improvements to the existing outlet works will be implemented in two

phases. The O'Shaughnessy Dam Outlet Works Phase 1 Project is described under Project Number 10032903 and is currently in the design and construction phases. Phase 2 of the O'Shaughnessy Dam Outlet Improvement Project will begin in 2025 and will include replacement and/or refurbishment of eight discharge valves, rehabilitation of three drum gates, refurbishment of twelve slide gates, installation of a new diversion pipe isolation valve, and improvements for the diversion tunnel. The project will include: (1) replacement of six 60-inch and one 72-inch discharge needle valves; (2) refurbishment of one 72-inch discharge butterfly valve; (3) rehabilitation of three drum gates; (4) refurbishment of twelve slide gates; (5) installation of a new diversion pipe isolation valve; and (6) improvements for the diversion tunnel.

Mountain Tunnel

10014114 Mountain Tunnel Improvement Project

Constructed between 1917 and 1925, Mountain Tunnel (MT) is a critical, nonredundant link in the Hetch Hetchy Regional Water System, conveying SFPUC water supply from Kirkwood Powerhouse to Priest Reservoir. Due to the tunnel's 90 years of operation, deferred maintenance, and construction deficiencies from the early 1900s, sections of the tunnel have deteriorated, some more extensively than others. The Mountain Tunnel Inspection and Repairs Project provided a tunnel inspection in 2017 to update the Condition Assessment conducted in 2008. Short-term repairs were also made in 2017 and 2018 to reduce the risk of failures in the concrete lining prior to implementation of the long-term project. The Mountain Tunnel Improvements (Rehabilitation)Project was selected for the design and construction of the preferred engineering alternative that will keep this vital component of the Hetch Hetchy Regional Water System in reliable service for years to come. The budget and schedule are based on the Mountain Tunnel Improvements Project construction phase, which is anticipated to take place between 2021 and 2027. This is the water funded portion of the Mountain Tunnel projects. For the Mountain Tunnel Improvements Project, the water portion will rehabilitate the inside of the tunnel and extend the siphon at South Fork, along with related safety improvements to the roadways that access the Mountain Tunnel.

Powerhouse (Joint)

10037077 Moccasin Old Powerhouse Hazard Mitigation

Design and install mitigation measures to prevent the building from collapsing and to prevent hazardous materials (such as lead-based paint and asbestos) from contaminating Moccasin Reservoir.

Tunnels (Joint)

10014108 Canyon Tunnel - Hetchy Adit Rehab & OSH Bridge

The project is to install a new reinforced concrete plug downstream of the existing plug in Hetchy Adit and rehabilitate O'Shaughnessy Adit Access Bridge including sub-structure retrofit and super structure replacement.

Utilities (Joint)

10014110 Moccasin Wastewater Treatment Plant

This project will replace the existing plant with a package two-train sequencing batch reactor (SBR) plant with grit removal and screening facilities, upgraded electrical and flow monitoring systems, flow equalization, SCADA instrumentation and automation features, and related site improvements.

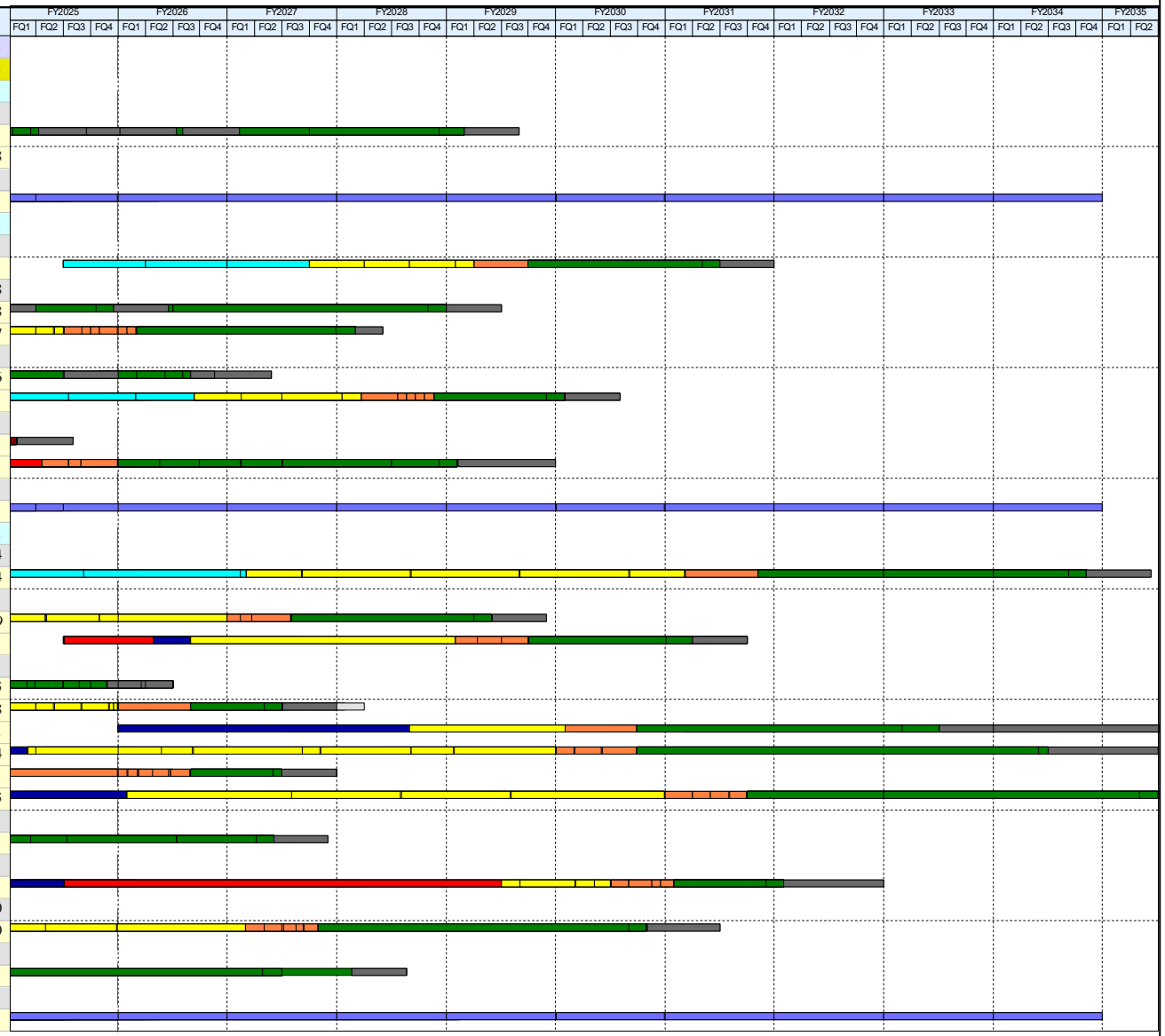
Joint Infrastructure Project Development

10014116 JOINT - PROJECT DEVELOPMENT

The Project Development (PD) Account captures program-level expenditures. The following charges are allocated to the joint funded PD Account: 1) task orders for overall program management and project prioritization tasks, where the costs should be distributed over all CIP Projects; 2) infrastructure and HHWP staff performing program-level tasks, including capital plan development, budget management (including fund management, and cost reallocations), and unifier and quarterly report generation tasks, where the costs should be distributed over all CIP projects; 3) portal support for the existing SharePoint portal (including document management and project dashboard reporting); 4) work outreach program; and 5) City Attorney contract development charges.

APPENDIX B. Hetch Hetchy Capital Improvement Program Approved Project Level Budgets/Schedules

Project Name	Approved Budget	Start	Finish
Hetchy Capital Improvement Program	$2,016,814,835.02	03-Oct-11	31-Dec-41
Hetch Hetchy Water Enterpise	$2,016,814,835.02	03-Oct-11	31-Dec-41
Water Infrastructure	$209,409,421.01	26-Mar-12	30-Jun-34
Water Conveyance (Water)	$196,494,822.00	01-Jul-19	28-Feb-29
10035575 SJPL Valve and Safe Entry Improvement	$157,752,191.00	01-Jul-19	28-Feb-29
10041725 SJPL Valve Remote Control and Monitoring	$38,742,631.00	01-Oct-24	31-Dec-28
Water Infrastructure Project Development	$12,914,599.00	26-Mar-12	30-Jun-34
CUH100PD HHW- Water Project Development	$12,914,599.00	26-Mar-12	30-Jun-34
Power Infrastructure	$376,407,179.00	29-May-12	30-Jun-34
Dams & Reservoirs (Power)	$38,798,254.00	01-Jan-25	30-Jun-31
CUH10106 Cherry-Eleanor Pumps	$38,798,254.00	01-Jan-25	30-Jun-31
Powerhouse	$141,611,932.99	18-Sep-20	31-Dec-28
CUH10114 Moccasin Powerhouse and GSU Rehabilitation	$100,556,003.00	18-Sep-20	31-Dec-28
10036809 HHW - Moccasin Powerhouse Bypass Upgrade	$41,055,930.00	18-Sep-20	01-Dec-27
Switchyard & Substations (Power)	$57,115,334.99	01-Sep-15	31-Jan-30
CUH10115 Warnerville Substation Rehabilitation Project	$37,407,004.00	01-Sep-15	25-Nov-26
10039568 Moccasin Switchyard Rehabilitation	$19,708,331.00	01-Nov-22	31-Jan-30
Transmission Lines	$121,007,957.01	01-Jul-17	30-Jun-29
10035721 Transmission Lines 7/8 Upgrades	$37,327,197.00	02-Dec-19	31-Jan-25
10014089 Transmission Lines Clearance Mitigation	$83,680,760.00	01-Jul-17	30-Jun-29
Power Infrastructure Project Development	$17,873,700.00	29-May-12	30-Jun-34
CUH101PD HHW- Power Project Development	$17,873,700.00	29-May-12	30-Jun-34
Joint Infrastructure	$1,430,998,235.01	03-Oct-11	31-Dec-41
Water Conveyance (Joint)	$331,171,945.00	03-Feb-14	08-Dec-34
CUH10116 Moccasin Penstock Rehabilitation	$331,171,945.00	03-Feb-14	08-Dec-34
Buildings (Join)	$115,023,904.00	14-Dec-22	01-Apr-31
10039680 Moccasin Engineering and Records Building	$88,733,548.00	14-Dec-22	31-May-29
10041727 Moccasin Warehouse Building	$26,290,356.00	01-Jan-25	01-Apr-31
Dams & Reservoirs (Joint)	$598,857,830.01	01-Feb-18	31-Dec-41
10032903 O'Shaughnessy Dam Outlet Works Phase 1	$43,731,371.01	01-Feb-18	31-Dec-25
10030759 Eleanor Dam Rehabilitation	$113,873,604.00	01-Jun-20	31-Dec-38
CUH102-N03 O'Shaughnessy Dam Outlet Works Phase 2	$184,106,942.00	01-Jul-25	31-Dec-41
10037351 Moccasin Dam & Reservoir Long Term Improve	$142,187,984.00	03-May-21	31-Dec-34
10014115 Cherry Dam Spillway - Short Term Improvemen	$14,885,874.00	01-Mar-21	30-Jun-27
10039119 Early Intake Dam - Long Term	$100,072,055.00	01-Jul-23	31-Dec-35
Mountain Tunnel	$268,668,950.00	03-Oct-11	03-Jun-27
CUH10221 Mountain Tunnel Improvement Project	$268,668,950.00	03-Oct-11	03-Jun-27
Powerhouse (Joint)	$13,474,515.00	01-Jan-21	01-Jul-32
10037077 Moccasin Old Powerhouse Hazard Mitigation	$13,474,515.00	01-Jan-21	01-Jul-32
Tunnels (Joint)	$30,138,401.00	03-Feb-14	31-Dec-30
CUH10215 Canyon Tunnel - Hetchy Adit Rehab & OSH Br	$30,138,401.00	03-Feb-14	31-Dec-30
Utilities (Joint)	$15,376,737.00	03-Jan-22	20-Feb-28
10014110 Moccasin Wastewater Treatment Plant	$15,376,737.00	03-Jan-22	20-Feb-28
Joint Infrastructure Project Development	$58,285,953.00	25-Jun-12	30-Jun-34
CUH102-PD HHW- Joint Project Development	$58,285,953.00	25-Jun-12	30-Jun-34



Project Management
Environmental
Right-of-Way
Construction Mgmt
Closeout
Planning
Design
Bid & Award
Construction
Program Mgmt

APPENDIX C. LIST OF ACRONYMS

AWWA	American Water Works Association
Cat Ex	Categorical Exemption
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CER	Conceptual Engineering Report
CIP	Capital Improvement Program
CM/GC	Construction Manager/General Contractor
CFS	Cubic Feet Per Second
DB	Design-Build
EIR	Environmental Impact Report
FY	Fiscal Year
GSU	Generator Step-Up
GWH	Gigawatt Hours
HCIP	Hetch Hetchy Capital Improvement Program
HH	Hetch Hetchy
HHWP	Hetch Hetchy Water and Power
IFR	Instream Flow Release
kV	Kilovolts
MCC	Motor Control Center
MND	Mitigated Negative Declaration
MT	Mountain Tunnel
NCN	Non-Conformance Notice
NTP	Notice to Proceed
OSH	O'Shaughnessy Dam
PD	Project Development
PG&E	Pacific Gas and Electric
PLC	Programmable Logic Controller
RFI	Requests for Information
R&R	Renewal and Replacement
SBR	Sequence Batch Reactor
SCADA	Supervisory Control and Data Acquisition
SFPUC	San Francisco Public Utilities Commission
SJPL	San Joaquin Pipeline
TBD	To Be Determined
TSC	Technical Steering Committee

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